Connecting via Winsock to STN

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LOGINID:SSSPTA1621

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	4	OCT 28	KOREAPAT now available on STN
NEWS	5	NOV 30	PHAR reloaded with additional data
NEWS	6	DEC 01	LISA now available on STN
NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	18	FEB 10	STN Patent Forums to be held in March 2005
NEWS	19	FEB 16	STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005
NEWS	20	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	21	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	22	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	23	MAR 02	GBFULL: New full-text patent database on STN
NEWS	24	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	25	MAR 03	MEDLINE file segment of TOXCENTER reloaded

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:20:54 ON 10 MAR 2005

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'STNGUIDE' ENTERED AT 16:20:59 ON 10 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Mar 4, 2005 (20050304/UP).

=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Switching to the Registry File...
Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

FILE 'REGISTRY' ENTERED AT 16:21:11 ON 10 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 9 MAR 2005 HIGHEST RN 844817-50-1
DICTIONARY FILE UPDATES: 9 MAR 2005 HIGHEST RN 844817-50-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\332.str

L1 STRUCTURE UPLOADED

=> FILE REG
COST IN U.S. DOLLARS SINCE FILE ENTRY 0.43 TOTAL SESSION 0.70

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 16:21:24 ON 10 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 9 MAR 2005 HIGHEST RN 844817-50-1
DICTIONARY FILE UPDATES: 9 MAR 2005 HIGHEST RN 844817-50-1

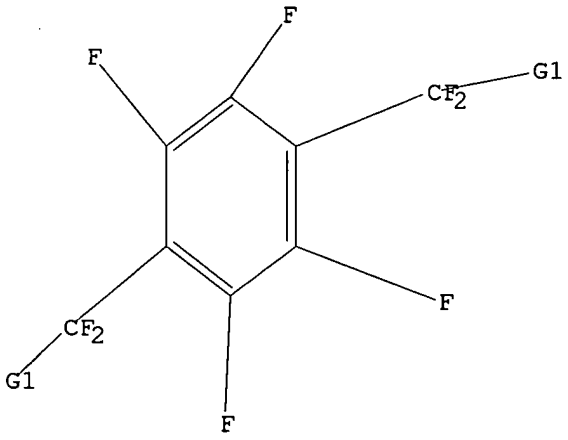
TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> D L1
L1 HAS NO ANSWERS
L1 STR



G1 H,Cl,Bk,A

Structure attributes must be viewed using STN Express query preparation.

=> S L1
SAMPLE SEARCH INITIATED 16:21:37 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 87 TO ITERATE

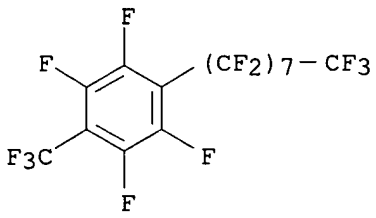
```
100.0% PROCESSED      87 ITERATIONS                          2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          1181 TO     2299
PROJECTED ANSWERS:                2 TO      124

L2            2 SEA SSS SAM L1

=> D L2 1-2 HITSTR
'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats.  The predefined substance formats
are:  (RN = CAS Registry Number)

REG     - RN
SAM     - Index Name, MF, and structure - no RN
FIDE    - All substance data, except sequence data
IDE     - FIDE, but only 50 names
SQIDE   - IDE, plus sequence data
SQIDE3  - Same as SQIDE, but 3-letter amino acid codes are used
SQD     - Protein sequence data, includes RN
SQD3    - Same as SQD, but 3-letter amino acid codes are used
SQN     - Protein sequence name information, includes RN

CALC    - Table of calculated properties
EPROP   - Table of experimental properties
PROP    - EPROP and CALC

Any CA File format may be combined with any substance format to
obtain CA references citing the substance.  The substance formats
must be cited first.  The CA File predefined formats are:

ABS  -- Abstract
APPS -- Application and Priority Information
BIB  -- CA Accession Number, plus Bibliographic Data
CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.
```

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):END

=> D L2 1-2

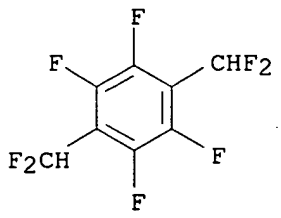
L2 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN
RN 135841-58-6 REGISTRY
CN Benzene, 1,2,4,5-tetrafluoro-3-(heptadecafluorooctyl)-6-(trifluoromethyl)-(9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C15 F24
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN
RN 114649-17-1 REGISTRY
CN Benzene, 1,4-bis(difluoromethyl)-2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C8 H2 F8
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: NORL (No role in record)
RL.NP Roles from non-patents: PREP (Preparation)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FILE HCAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	4.54	5.24

FILE 'HCAPLUS' ENTERED AT 16:22:48 ON 10 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 10 Mar 2005 VOL 142 ISS 11
FILE LAST UPDATED: 9 Mar 2005 (20050309/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L1
REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 16:22:52 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 87 TO ITERATE

100.0% PROCESSED 87 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1181 TO 2299
PROJECTED ANSWERS: 2 TO 124

L3 2 SEA SSS SAM L1

L4 3 L3

=> D L4 1-3 ABS IBIB

L4 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The title compds., fluoroalkyl olefins, fluorinated ketones and fluorobenzenes are prepared by reacting (R1)3SiCF2T, (R1)3SiPh [R1 = (substituted) hydrocarbyl; T = F, FCW2, W = (substituted) hydrocarbyl, silanyl, H, F] with Q1CF:CMQ2 [Q1, Q2 = F, X2FC; X = H, Cl, F, (substituted) hydrocarbyl, H2C:CH, bond; M = X2FC, X2CFO], FCOR2 [R2 = (substituted) hydrocarbyl], perfluoropyridine, PhY (Y = nonreactive group whose Hammet sigma constant is +0.5 or more) in presence of catalyst and a solvent. BzF and C6F13SiMe3 in THF-d8 were treated with CeF and heated for 15 min at 60° to give PhCOC6F13.

ACCESSION NUMBER: 1991:535679 HCAPLUS
DOCUMENT NUMBER: 115:135679
TITLE: Process for producing fluorinated organic compounds
INVENTOR(S): Farnham, William Brown
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9105750	A2	19910502	WO 1990-US5660	19901011
WO 9105750	A3	19910808		
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5093512	A	19920303	US 1989-424470	19891020
CA 2067387	AA	19910421	CA 1990-2067387	19901011
EP 498817	A1	19920819	EP 1990-915622	19901011
EP 498817	B1	19940608		
R: DE, FR, GB, IT, NL, SE				
JP 05501252	T2	19930311	JP 1990-514545	19901011
US 5171893	A	19921215	US 1991-801344	19911202
PRIORITY APPLN. INFO.:			US 1989-424470 A	19891020
			WO 1990-US5660 W	19901011

OTHER SOURCE(S): MARPAT 115:135679

L4 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

AB PhMe, PhCF3, p-xylene, and m-(CF3)2C6H4 were fluorinated at 300-400° with CsCoF4. PhMe gave mainly PhCHF2, C6F5CH2F, C6F5CHF2, perfluoromethylcyclohexane (I), and (difluoromethyl)undecafluorocyclohexane. PhCF3 gave mainly m-FC6H4CF3, C6F5CF3, and I. p-Xylene gave p-R1C6F4R2 (R1, R2 = CHF2, CF3), and perfluoro-1,4-dimethylcyclohexane (II). m-(CF3)2C6H4 gave 4,5,6,1,3-F3(CF3)2C6H, m-(CF3)2C6F4, and perfluoro-1,3-dimethylcyclohexane. I and II were defluorinated in the presence of the spent CsCoF4 (presumably CsCoF3) to give C6F5CF3 and p-(CF3)2C6F4, resp.

ACCESSION NUMBER: 1988:221344 HCAPLUS
DOCUMENT NUMBER: 108:221344
TITLE: Fluorinations with complex metal fluorides. Part 9. Fluorinations of toluene and xylene derivatives by means of cesium tetrafluorocobaltate(III)
AUTHOR(S): Bailey, John; Plevey, Raymond G.; Tatlow, John Colin
CORPORATE SOURCE: Chem. Dep., Univ. Birmingham, Birmingham, B15 2TT, UK
SOURCE: Journal of Fluorine Chemistry (1987), 37(1), 1-14
CODEN: JFLCAR; ISSN: 0022-1139
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 108:221344

L4 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The sulfone is heated at 650-850° to produce p-xylylene radicals

which are polymerized by cooling to give heat-resistant and thermoplastic polymers. Thus, 73 g. 2-chloroterephthalaldehyde, prepared by hydrolysis of α,α,α',α'-tetrabromo-2-chloro-p-xylene, and 180 g. SF4 were mixed and heated at 150° for 12 hrs. to give a product which, after dissoln. in CH2Cl2 and washing with H2O and aqueous Na2CO3, was distilled to produce 67.5 g. α,α,α',α'-tetrafluoro-2-chloro-p-xylene (I) (b20 88-9°). Then, 42.4 g. I and 90 g. N-bromosuccinimide in 500 ml. CCl4 were refluxed for 64 hrs. while irradiated by uv light. After filtering the succinimide, distillation gave 11.05 g. 2,5(BrF2C)2C6H3Cl (II) (b25 126-8°). Gas chromatography indicated that this product was 98.5% pure. p-C6H4(CF2Br)2 (III) (b25 102-7°) was produced from terephthalaldehyde by a similar process, while p-C6H4(CF2Cl)2 (IV) (b34 86-90°) was prepared by treating p-C6H4(CHF2)2 with Cl under uv light. A mixture of 2.05 g. Na in 40 ml. MeOH, 100 ml. Me2SO, and 5.5 g. EtSH was stirred for 10 min., 13.9 g. II added, and the mixture heated for 2 hrs. at 50-60° and then held for 16 hrs. at room temperature After pouring the solution into ice-water, the product was extracted by CH2Cl2 and distilled to give 11.4 g. α,α'-bis(ethylthio)-α,α,α',α'-tetrafluoro-2-chloro-p-xylene (V) (b0.2-0.5 105-20°). This treatment of III with different mercaptans gave p-C6H4(CF2SR)2 (VI) with R = Et (b0.2 90-110°), Pr (b0.5-1 123-40°), Bu (b0.2 130-40°), and Ph (m.p. 152-60°). At 0-5°, 25 ml. 30% H2O2 was added dropwise to a solution of 11.4 g. V in 130 ml. 1:1 HOAc in Ac2O, the mixture was stirred for 3 hrs., poured into cold water, and the product washed with H2O, 5% aqueous Na2CO3, H2O, and crystallized from CHCl3 in hexane to give 7.2 g. α,α'-bis(ethylsulfonyl)-α,α,α',α'-tetrafluoro-2-chloro-p-xylene (VII) (m.p. 120-2°). Similarly, oxidation of VI gave the corresponding sulfones (VIII) m. 158-64° (R = Et), 158-63° (R = Pr), 162-66° (R = Bu), and 232-40° (R = Ph). VII was vaporized at 190° and 0.04 mm., passed through a quartz tube heated in a furnace, cooled to 15-20° and in a bath of dry ice in Me2CO. The walls of the condenser were covered with a film of poly(α,α,α',α'-tetrafluoro-2-chloro-p-xylylene). Heat treatment of VIII produced poly(α,α,α',α'-tetrafluoro-p-xylylene) (m.p. >360°), while poly(α,α,α',α'-2,3,5,6-octafluoro-p-xylylene) and poly(α,α,α',α'-tetrafluoro-2-phenyl-p-xylylene) were also prepared from the appropriate sulfones made from 2,3,5,6-tetrafluoroterephthalaldehyde and 2-phenylterephthalaldehyde, resp.

ACCESSION NUMBER: 1965:446763 HCAPLUS
DOCUMENT NUMBER: 63:46763
ORIGINAL REFERENCE NO.: 63:8520h,8521a-d
TITLE: Poly(fluoro-p-xylylenes) from p-xylylene bis-sulfones
PATENT ASSIGNEE(S): Union Carbide Corp.
SOURCE: 21 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6411019		19650324	NL	
PRIORITY APPLN. INFO.:			US	19630923

=> FILE CASREACT
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION

FULL ESTIMATED COST 10.40 18.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION

CA SUBSCRIBER PRICE -2.19 -2.19

FILE 'CASREACT' ENTERED AT 16:23:27 ON 10 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

FILE CONTENT:1840 - 6 Mar 2005 VOL 142 ISS 10

****
*
* CASREACT now has more than 8 million reactions *
*
****

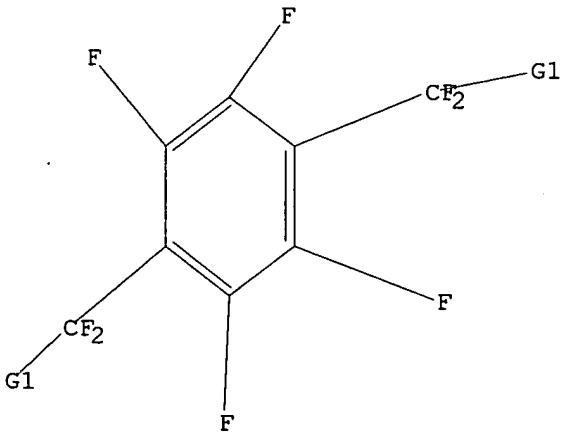
Some CASREACT records are derived from the ZIC/VINITI database (1974-1991) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S DL1
L5 1 DL1

=> S L5 ABS IBIB
MISSING OPERATOR L5 ABS
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> D L1
L1 HAS NO ANSWERS
L1 STR



G1 H,Cl,Bk,A

Structure attributes must be viewed using STN Express query preparation.

```
=> S L1
SAMPLE SEARCH INITIATED 16:24:09 FILE 'CASREACT'
SCREENING COMPLETE -      5 REACTIONS TO VERIFY FROM      2 DOCUMENTS

100.0% DONE      5 VERIFIED       0 HIT RXNS                      0 DOCS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED VERIFICATIONS:         5 TO      234
PROJECTED ANSWERS:               0 TO        0

L6            0 SEA SSS SAM L1 (      0 REACTIONS)

=> S L2
L7            1 L2

=> D L7 ABS IBIB


L7   ANSWER 1 OF 1  CASREACT  COPYRIGHT 2005 ACS on STN
AB   PhMe, PhCF3, p-xylene, and m-(CF3)2C6H4 were fluorinated at
     300-400° with CsCoF4.  PhMe gave mainly PhCHF2, C6F5CH2F, C6F5CHF2,
     perfluoromethylcyclohexane (I), and (difluoromethyl)undecafluorocyclohexan
     e.  PhCF3 gave mainly m-FC6H4CF3, C6F5CF3, and I.  p-Xylene gave
     p-R1C6F4R2 (R1, R2 = CHF2, CF3), and perfluoro-1,4-dimethylcyclohexane
     (II).  m-(CF3)2C6H4 gave 4,5,6,1,3-F3(CF3)2C6H, m-(CF3)2C6F4, and
     perfluoro-1,3-dimethylcyclohexane.  I and II were defluorinated in the
     presence of the spent CsCoF4 (presumably CsCoF3) to give C6F5CF3 and
     p-(CF3)2C6F4, resp.
ACCESSION NUMBER:        108:221344  CASREACT
TITLE:                   Fluorinations with complex metal fluorides.  Part 9.
                         Fluorinations of toluene and xylene derivatives by
                         means of cesium tetrafluorocobaltate(III)
AUTHOR(S):               Bailey, John; Plevey, Raymond G.; Tatlow, John Colin
CORPORATE SOURCE:        Chem. Dep., Univ. Birmingham, Birmingham, B15 2TT, UK
SOURCE:                  Journal of Fluorine Chemistry (1987), 37(1), 1-14
                         CODEN: JFLCAR; ISSN: 0022-1139
DOCUMENT TYPE:           Journal
LANGUAGE:                English


=> FILE USPATFULL
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    32.85      51.37

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -0.68      -2.87

FILE 'USPATFULL' ENTERED AT 16:25:06 ON 10 MAR 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 10 Mar 2005 (20050310/PD)
FILE LAST UPDATED: 10 Mar 2005 (20050310/ED)
HIGHEST GRANTED PATENT NUMBER: US6865747
HIGHEST APPLICATION PUBLICATION NUMBER: US2005055750
CA INDEXING IS CURRENT THROUGH 10 Mar 2005 (20050310/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 10 Mar 2005 (20050310/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2005
```

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2005

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L1
SUBSTANCE QUERIES NOT VALID IN THIS FILE
The logic expression entered contains L#s or saved query names which correspond to structures built by the STRUCTURE command or to screen sets. These must be searched in a substance file such as the REGISTRY file. In some files you may use a Registry Number answer set from a structure search as a search term or profile in some bibliographic file containing Registry Numbers, e.g. the CA file. For an explanation, enter "HELP CROSSOVER" at an arrow prompt (=>).

=> S L2
L8 2 L2

=> D L2 1=2 ABS IBIB
YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:END

=> D L8 1-2 ABS IBIB

L8 ANSWER 1 OF 2 USPATFULL on STN
AB This invention concerns a process for preparing fluoroalkyl substituted olefins, fluorinated ketones and fluorinated aromatic compounds by the catalyzed reaction of fluoroalkylsilanes with selected fluorinated olefins, acyl fluorides and fluorinated aromatic compounds, respectively.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	92:103206 USPATFULL		
TITLE:	Process for producing fluorinated organic compounds		
INVENTOR(S):	Farnham, William B., Wilmington, DE, United States		
PATENT ASSIGNEE(S):	E. I. Du Pont de Nemours and Company, Wilmington, DE, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5171893		19921215
APPLICATION INFO.:	US 1991-801344		19911202 (7)
RELATED APPLN. INFO.:	Division of Ser. No. US 1989-424470, filed on 20 Oct 1989, now patented, Pat. No. US 5093512		

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lee, Mary C.
ASSISTANT EXAMINER: McKane, Joseph K.
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
LINE COUNT: 939
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 2 USPATFULL on STN
AB This invention concerns a process for preparing fluoroalkyl substituted olefins, fluorinated ketones and fluorinated aromatic compounds by the catalyzed reaction of fluoroalkylsilanes with selected fluorinated olefins, acyl fluorides and fluorinated aromatic compounds, respectively.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 92:17303 USPATFULL
TITLE: Process for producing fluorinated organic compounds
INVENTOR(S): Farnham, William B., Wilmington, DE, United States
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., Wilmington, DE, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5093512		19920303	
APPLICATION INFO.:	US 1989-424470		19891020	(7)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lee, Mary C.
ASSISTANT EXAMINER: McKane, Joseph K.
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
LINE COUNT: 940
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L2 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Title fluoroelastomers [intrinsic viscosity (η) 0.1-2.0 dL/g] consist of C2F4 50-80, perfluoro(lower alkyl vinyl ether) 20-45, and perfluoroallylbenzene (I) 0.1-2 mol%. Thus, C2F4 22, CF3OCF:CF2 (II) 92, and I 10 g were copolymd. at 50° for 6 h under N in H2O in the presence of Na2HPO4.12H2O, C7F15CO2NH4, Na2SO3, and (NH4)2S2O8 to obtain 10 g 0.4:55.8:43.8 (mol) I-C2F4-II copolymer (η 0.5 dL/g), 100 parts of which was mixed with dicyclohexyl-18-crown-6 2, carbon black 10, bisphenol AF dipotassium salt 3, and MgO 4 parts to show torque change 2.9 kg-cm (180°).
ACCESSION NUMBER: 1996:449290 HCAPLUS
DOCUMENT NUMBER: 125:88890
TITLE: Preparation of fluoroelastomers with improved vulcanization velocity
INVENTOR(S): Saito, Satoshi; Tatsu, Harumi; Refu, Soromonobitsuchi Geruman
PATENT ASSIGNEE(S): Nippon Mektron Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08104719	A2	19960423	JP 1994-266246	19941004
US 5589559	A	19961231	US 1995-538936	19951004
PRIORITY APPLN. INFO.:			JP 1994-266246 A	19941004

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Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L4 4 L3

=> D L4 1-4 ABS IBIB

L4 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Pulsed plasma deposition of polymers as dielecs. for integrated circuit interconnects fills minimal gaps and yields a porous polymer with thermal stability by plasma off times sufficiently long to dissipate plasma on-time energy input plus an anneal of the deposited polymer to drive off occluded monomers and small oligomers. Forming a porous polymer filling gaps on a surface, comprises the steps of (a) activating precursors with a pulsed plasma, (b) polymerizing said precursors to form a polymer layer on a surface with gaps, and (c) annealing said polymer layer at a temperature of ≥350°.
ACCESSION NUMBER: 2001:255860 HCAPLUS
DOCUMENT NUMBER: 134:282173
TITLE: Method of forming a fluoropolymer on a wafer surface

INVENTOR(S): Lee, Wei William; Timmons, Richard B.; Han, Licheng Marshal
PATENT ASSIGNEE(S): Texas Instruments Incorporated, USA
SOURCE: U.S., 30 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6214423	B1	20010410	US 1999-292629	19990415
PRIORITY APPLN. INFO.:			US 1998-82028P P	19980416

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The plasma polymerization of the perfluoroallyl benzene monomer [(C6F5)CF2CF=CF2]
was carried out under pulsed discharge conditions. Progressive changes in the composition of the plasma-generated polymers were observed with sequential changes in the duty cycle of the pulsed discharge, while other reaction variables remained constant In particular, an increased retention of the aromatic ring of the starting monomer in the polymers was obtained with decreasing plasma duty cycles during film formation, as shown by XPS and FTIR analyses of these films. Dielec. consts. of these per-fluorinated films were consistently below a value of 2.0, measured over a frequency range of 5+102-1+105 Hz. Although TGA of the plasma films revealed significant weight loss, beginning at temps. <300°, up to 70%, dramatic improvement in the thermal stability of these films was observed following their thermal annealing at temps. of 350-400° under N. The annealed films exhibited negligible weight loss during subsequent TGA at temps. ≤420°. Most importantly, this gain in thermal stability of the plasma polymers was achieved with only minor increases in the dielec. consts., along with relatively minor changes in film compns., following the thermal annealing processes. The implications of this study with respect to low dielec. constant requirements for future smaller feature size integrated circuits are discussed.
ACCESSION NUMBER: 2000:230925 HCAPLUS
DOCUMENT NUMBER: 133:44206
TITLE: Pulsed plasma polymerization of an aromatic perfluorocarbon monomer: formation of low dielectric constant, high thermal stability films
AUTHOR(S): Han, Licheng M.; Timmons, Richard B.; Lee, Wei W.
CORPORATE SOURCE: Department of Chemistry and Biochemistry, The University of Texas at Arlington, Arlington, TX, 76019, USA
SOURCE: Journal of Vacuum Science & Technology, B: Microelectronics and Nanometer Structures (2000), 18(2), 799-804
CODEN: JVTBD9; ISSN: 0734-211X
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Pulsed plasma polymerization of perfluoroallylbenzene can lead to the deposition
of films containing high concns. of perfluorinated Ph groups. XPS, Fourier transform IR spectroscopy, and deposition rate measurements have shown

that low duty cycles give rise to minimal precursor fragmentation accompanied by conventional free radical polymerization during the off-period.

ACCESSION NUMBER: 1998:499322 HCAPLUS
DOCUMENT NUMBER: 129:189729
TITLE: Selective Incorporation of Perfluorinated Phenyl Rings during Pulsed Plasma Polymerization of Perfluoroallylbenzene
AUTHOR(S): Hynes, A.; Badyal, J. P. S.
CORPORATE SOURCE: Department of Chemistry Science Laboratories, Durham University, Durham, DH1 3LE, UK
SOURCE: Chemistry of Materials (1998), 10(8), 2177-2182
CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Perfluoro-α-methylstyrene, perfluoro-β-methylstyrene, perfluoroallylbenzene, α-chloroperfluorostyrene, α,p-dichlorohexafluorostyrene, and α,β-dichloroperfluorostyrene were polymerized in glow-discharge plasma. Rate of film formation and IR spectra of monomers and polymers are given, and various possible mechanisms of polymerization are discussed.

ACCESSION NUMBER: 1994:245894 HCAPLUS
DOCUMENT NUMBER: 120:245894
TITLE: Polymerization of polyfluorinated styrenes in glow-discharge plasma
AUTHOR(S): Gil'man, A. B.; Shifrina, R. R.; Dvornikova, K. A.; Platonov, V. E.
CORPORATE SOURCE: Nauchno-Issled. Fiz.-Khim. Inst. im. L. Ya. Karpova, Moscow, 103064, Russia
SOURCE: Khimiya Vysokikh Energii (1994), 28(1), 84-7
CODEN: KHVKAO; ISSN: 0023-1193
DOCUMENT TYPE: Journal
LANGUAGE: Russian

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Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

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=> D L5 1-10 ABS IBIB
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=> D L6 1-10 ABS IBIB

L6 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Plasma coating for formation of slow-release barrier on pigments (benzotriazole or cerium acetate) used as anticorrosive agents in superprimer coatings was faster when perfluorotoluene was used than when perfluorohexane was used as the plasma-polymerizing monomer. The pigments, when added to epoxy resin anticorrosion coatings, showed good water

resistance and longer corrosion times than uncoated pigments.

ACCESSION NUMBER: 2004:653347 HCAPLUS
DOCUMENT NUMBER: 142:58279
TITLE: Plasma polymer coated pigments for slow release in organic superprimer coatings
AUTHOR(S): Manian, Hrishikesh; Yang, Lin; van Ooij, W. J.
CORPORATE SOURCE: Department of Chemical and Materials Engineering, University of Cincinnati, Cincinnati, OH, 45221, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2004), 45(2), 219-220
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN

AB In this study, hydrophobic plasma polymer films were prepared from perfluorohexane with saturated linear structure and octafluorotoluene with a cyclic unsatd. structure. Hydrophilic plasma polymer film was prepared from acrylic acid with an unsatd. linear structure. The film deposition rates were compared through in-situ laser interferometer measurement and correlated them with the precursor structure and the deposition parameters. The chemical structure and the surface energy of the films were also investigated with FTIR and contact angle measurement. The results showed that the deposition rate increased with the discharge power. Otherwise, the deposition rate relied on the structure of the precursors to a large extent. The deposition rate of octafluorotoluene is 7 times the deposition rate of perfluorohexane and 5 times the deposition rate of acrylic acid at the same deposition parameters. So a high deposition rate could be obtained for the precursors with cyclic and unsatd. structures. For the pulse discharge of acrylic acid, there existed a maximum deposition rate for a certain pulse frequency. But it was found that the pulse frequency had greater effects on the structure of the plasma films than on the deposition rate. As the pulse frequency decreased, more CHO and O-C:O groups were found in the deposited film of acrylic acid. And the pulse discharge at low power could keep more aromatic ring in octafluorotoluene plasma film than continuous discharge at high power. This explained the phenomenon that the surface energy of octafluorotoluene plasma film deposited by the low power pulse discharge was lower than that of the film deposited by the high power continuous discharge and showed to be more hydrophobic.

ACCESSION NUMBER: 2001:445569 HCAPLUS
DOCUMENT NUMBER: 135:227302
TITLE: Investigation of deposition rate and structure of pulse DC plasma polymers
AUTHOR(S): Zhang, J.; van Ooij, W.; France, P.; Datta, S.; Radomyselskiy, A.; Xie, H.
CORPORATE SOURCE: College of Basic Sciences, Plasma and Surface Research Center, Donghua University, Shanghai, 200051, Peop. Rep. China
SOURCE: Thin Solid Films (2001), 390(1,2), 123-129
CODEN: THSFAP; ISSN: 0040-6090
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Thin fluoropolymer films were deposited by plasma enhanced chemical vapor

deposition from octafluorotoluene (OFT) precursor. Transparent, yellow, hydrophobic and highly adhering films were formed on glass or poly(Me methacrylate) (PMMA) substrates in a capacitively couple radio frequency (13.56 MHz) plasma system. The effect of the plasma parameters (r.f. power, deposition time, and pressure of monomer) on the properties of films was studied. The deposition rate of octafluorotoluene increases with increase of r.f. power, reaches a maximum and then decreases. The increase of monomer pressure can enhance the deposition rate monotonically, but powdery films are formed when the monomer pressure is higher than 140 mTorr. The films have a hydrophobic surface with a water contact angle of 100°. After water soaking treatments, the water contact angle of the films decreased to about 60°. XPS and FTIR spectra indicate that the films contain significant amts. of CFx (x = 1,2,3) groups and small amts. of double bond groups (C=C, CF=CF). The stoichiometry of the films, i.e., fluorine to carbon ratio (F/C) is 0.38: 1, which is lower than that of OFT monomer (F/C 1.14: 1).

ACCESSION NUMBER: 1999:693119 HCAPLUS
DOCUMENT NUMBER: 131:351746
TITLE: Fabrication and characterization of fluorine-containing films using plasma polymerization of octafluorotoluene
AUTHOR(S): Chen, Ko-Shao; Yang, Mu-Rong; Hsu, Shao Ta
CORPORATE SOURCE: Department of Materials Engineering, Tatung Institute of Technology, Taipei, 104, Taiwan
SOURCE: Materials Chemistry and Physics (1999), 61(3), 214-218
CODEN: MCHPDR; ISSN: 0254-0584
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Thin films were deposited from aromatic and non-aromatic perfluorinated and partly fluorinated hydrocarbons, which polymerize upon deposition. The films were evaluated in terms of dielec. constant (k), thermal stability, refractive index, solubility, and adhesion. The effect of monomer structure on certain properties required for low k polymers. Higher fluorine content in the monomers leads to polymers with lower k whereas a lower fluorine content leads to higher deposition rate, which is decreases with deposition temperature The best thermal properties are achieved when the wafer substrate is heated to 400°. Only the aromatic compds. form homopolymers that are deposited at suitable rate at that temperature Among these, it is still the monomer with the highest fluorine content which leads to the lowest k.

ACCESSION NUMBER: 1998:531771 HCAPLUS
DOCUMENT NUMBER: 129:261114
TITLE: Plasma deposition of various fluorinated precursors for low dielectric constant materials
AUTHOR(S): Maier, Gerhard; Dietlmeier, marcus; Klumpp, Armin
CORPORATE SOURCE: Lehrstuhl fur Makromolekulare Chemie, Technische Univ. Munchen, Garching, D-85747, Germany
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 859-860
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN

AB XPS and static secondary ion mass spectrometry (SIMS) were used to characterize plasma polymers of perfluorobenzene (I), perfluorotoluene (II), perfluorocyclohexene (III), perfluorocyclohexane (IV), and C6H6. The plasma polymers of I and II appear to be based on a perfluoroalkylbenzene-type structure, with lesser amount of other ring systems and very few aliphatic chains. The polymers derived from III and IV were much more aliphatic in nature, with fewer aromatic and other ring systems. The SIMS anal. of plasma-polymerized C6H6 was almost identical to that of polystyrene, but this probably does not reflect the true nature of the plasma polymer.

ACCESSION NUMBER: 1993:496638 HCAPLUS
DOCUMENT NUMBER: 119:96638
TITLE: The characterization of plasma polymers by XPS and static SIMS
AUTHOR(S): Munro, H. S.; Ward, R. J.; Davies, M. C.; Short, R. D.
CORPORATE SOURCE: Dep. Chem., Univ. Durham, Durham, DH1 3LE, UK
SOURCE: Polymer (1993), 34(11), 2250-5
CODEN: POLMAG; ISSN: 0032-3861
DOCUMENT TYPE: Journal
LANGUAGE: English

L6 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The title process is described by rotation of the materials in a container and plasma polymerization of gaseous monomers in the container to form polymer layer on the materials. Thus, plasma polymerization of hexafluorobenzene in a rotated container containing PET molding in the presence of Ar at 1 + 10-1 Torr and 10W for 30 min gave coatings having thickness .apprx.8 μm with good adhesion.

ACCESSION NUMBER: 1993:193230 HCAPLUS
DOCUMENT NUMBER: 118:193230
TITLE: Manufacture of homogeneous hard polymer coatings on complex shape materials
INVENTOR(S): Kimura, Toshiyuki; Ota, Katsuhisa
PATENT ASSIGNEE(S): Matsushita Electric Works, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04296337	A2	19921020	JP 1991-62190	19910326
PRIORITY APPLN. INFO.:			JP 1991-62190	19910326

L6 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The structure of plasma-polymerized polyethane [36427-13-1], polyethylene [9002-88-4], and polyacetylene [25067-58-7] films were determined by 13C NMR, and the structure of polytoluene [25013-04-1] was determined by NMR, pyrolysis-gas chromatog., and mass spectrometry. PTFE [9002-84-0] and poly(octafluorotoluene) [**81313-09-9**] structures were determined by NMR and ESCA.

ACCESSION NUMBER: 1984:531399 HCAPLUS
DOCUMENT NUMBER: 101:131399
TITLE: Characterization of plasma-polymerized materials by modern spectroscopic techniques
AUTHOR(S): Kaplan, S.; Dilks, A.
CORPORATE SOURCE: Xerox Corp., New York, NY, 14580, USA
SOURCE: Journal of Applied Polymer Science: Applied Polymer Symposium (1984), 38(Plasma Polym. Plasma Treat.), 105-25
CODEN: JPSSDD; ISSN: 0271-9460

DOCUMENT TYPE: Journal
LANGUAGE: English

L6 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN
AB ESCA, 13C NMR, and pyrolysis gas chromatog.-mass spectroscopy were used to characterize plasma-deposited films (e.g., of octafluorotoluene, toluene, and ethylene), and the results are presented and discussed.
ACCESSION NUMBER: 1984:121906 HCAPLUS
DOCUMENT NUMBER: 100:121906
TITLE: Characterization of plasma-polymerized materials by modern spectroscopic techniques
AUTHOR(S): Dilks, Alan; Kaplan, Samuel
CORPORATE SOURCE: Xerox Corp., Rochester, NY, 14644, USA
SOURCE: Organic Coatings and Applied Polymer Science Proceedings (1982), 47, 212-16
CODEN: OCAPDE; ISSN: 0732-7528
DOCUMENT TYPE: Journal
LANGUAGE: English

L6 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Glow-discharge polymns. of tetrafluoroethylene, perfluoro(methylcyclohexane), and perfluorotoluene were investigated by IR spectroscopy and ESCA to clarify the contribution of olefinic double bonds and cyclic structures. The products formed from the 3 compds. were deposited as filmy polymers containing large amts. of fluorine. Their polymeric chains are composed of CF, CF-CFn, CF2, and CF3 groups and have relatively little dependence on chemical structures of the starting compds. The polymer-forming process involves not only chain reactions via addition reaction to double bonds and via ring-opening reactions but also the rupture of C-F bonds and the rearrangement of the ruptured fluorine atoms.
ACCESSION NUMBER: 1983:216108 HCAPLUS
DOCUMENT NUMBER: 98:216108
TITLE: Glow discharge polymerizations of tetrafluoroethylene, perfluoromethylcyclohexane and perfluorotoluene investigated by infrared spectroscopy and ESCA
AUTHOR(S): Inagaki, N.; Nakanishi, T.; Katsuura, K.
CORPORATE SOURCE: Fac. Eng., Shizuoka Univ., Hamamatsu, 432, Japan
SOURCE: Polymer Bulletin (Berlin, Germany) (1983), 9(10-11), 502-6
CODEN: POBUDR; ISSN: 0170-0839
DOCUMENT TYPE: Journal
LANGUAGE: English

L6 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The polymerization rate in glow-discharge polymerization of F-containing aromatic compds.
increased in the order: C6F6 [392-56-3] < pentafluoro(trichloromethyl)benzene [778-34-7] < octafluorotoluene [434-64-0] < perfluoro-α-chlorostyrene [58161-50-5] < perfluorostyrene [652-23-3]. The [F]/[C] ratio in the polymers was lower than that of the monomers. The thermal stability and hydrophobicity of the polymers decreased with decreasing [F]/[C] ratio and on introducing Cl substituents. Based on IR spectra, a general polymerization mechanism was proposed involving aromatic ring opening, formation of aliphatic C-F bonds, and condensation of aromatic rings.
ACCESSION NUMBER: 1982:143378 HCAPLUS
DOCUMENT NUMBER: 96:143378
TITLE: Polymerization of some polyfluoro aromatic compounds in a glow discharge
AUTHOR(S): Gil'man, A. B.; Shifrina, R. R.; Dvornikova, K. V.; Kolotyrkin, V. M.; Platonov, V. E.; Potapov, V. K.; Yakobson, G. G.
CORPORATE SOURCE: Fiz.-Khim. Inst. im. Karpova, Moscow, USSR
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1982),

24(1), 155-60
CODEN: VYSAAF; ISSN: 0507-5475
DOCUMENT TYPE: Journal
LANGUAGE: Russian

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Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

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=> D L8 1-2 ABS IBIB

L8 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Title rubbers, with good processability and flow and giving vulcanizates with good mech. properties, are prepared by polymerizing fluoroolefins in the presence of aromatic polyfluorides, polybromides, or polyiodides. Emulsion telomerization of CH2:CF2 69, C2F4 20, and CF2:CFOCF3 11 mol in the presence of 1 g (NH4)2S2O8 and 8.3 g 1,4-C6F4(CF2CF2I)2 (I) at 80° for 24 h gave a rubber with I2 content 0.32% and intrinsic viscosity (MEK, 35°) 0.92, giving peroxide vulcanizates with JIS A hardness 66, 100% modulus 29 kg/cm2, tensile strength 141 kg/cm2, elongation 240%, and compression set 32%; vs. 0.39, 0.31 (Br), 66, -, 43, 90, and >100 [sic], resp., with C2BrF3 in place of I.
ACCESSION NUMBER: 1988:76909 HCAPLUS
DOCUMENT NUMBER: 108:76909
TITLE: Peroxide-vulcanizable fluoro rubbers made by telomerization with polyhalides
INVENTOR(S): Tatsu, Haruyoshi; Okabe, Jun; Naraki, Akihiro; Abe, Masatoshi; Ebina, Yoshiaki
PATENT ASSIGNEE(S): Nippon Mectron Co., Ltd., Japan
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3710819	A1	19871008	DE 1987-3710819	19870401
DE 3710819	C2	19941124		
JP 62232407	A2	19871012	JP 1986-74484	19860401
JP 01016844	B4	19890328		
US 4774302	A	19880927	US 1987-25053	19870312
PRIORITY APPLN. INFO.:			JP 1986-74484 A	19860401

L8 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The title rubbers, with good processability, flow, and phys. properties, are prepared by polymerizing fluoroolefins in the presence of the halides RBrnIm
(R = hydrocarbyl, optionally bearing Cl and/or F atoms; n, m = 1 or 2). Emulsion polymerization of CH2:CF2, C3F6, and C2F4 in mol ratio 42:38:20 in the presence of 2.0 g BrCF2CF2I at 80° for 3 h gave 508 g polymer with intrinsic viscosity (MEK, 35°) 0.68 and Br + I content 0.25%,

giving vulcanizates with JIS A hardness 72, 100% modulus 30 bar, tensile strength 260 bar, elongation 480%, and compression set 31%.

ACCESSION NUMBER: 1988:76908 HCAPLUS
DOCUMENT NUMBER: 108:76908
TITLE: Peroxide-vulcanizable fluororubbers
INVENTOR(S): Tatsu, Haruyoshi; Okabe, Jun; Naraki, Akihiro; Abe, Masatoshi; Ebina, Yoshiaki
PATENT ASSIGNEE(S): Nippon Mecktron Co., Ltd., Japan
SOURCE: Ger. Offen., 11 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3710818	A1	19871008	DE 1987-3710818	19870401
DE 3710818	C2	19931021		
US 4748223	A	19880531	US 1987-25191	19870312
JP 63308008	A2	19881215	JP 1987-58145	19870313
JP 01057125	B4	19891204		
PRIORITY APPLN. INFO.:			JP 1986-74483 A	19860401
			JP 1987-21591 A	19870130

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L11 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Title rubbers, with good processability and flow and giving vulcanizates with good mech. properties, are prepared by polymerizing fluoroolefins in the presence of aromatic polyfluorides, polybromides, or polyiodides. Emulsion telomerization of CH2:CF2 69, C2F4 20, and CF2:CFOCF3 11 mol in the presence of 1 g (NH4)2S2O8 and 8.3 g 1,4-C6F4(CF2CF2I)2 (I) at 80° for 24 h gave a rubber with I2 content 0.32% and intrinsic viscosity (MEK, 35°) 0.92, giving peroxide vulcanizates with JIS A hardness 66, 100% modulus 29 kg/cm2, tensile strength 141 kg/cm2, elongation 240%, and compression set 32%; vs. 0.39, 0.31 (Br), 66, -, 43, 90, and >100 [sic], resp., with C2BrF3 in place of I.

ACCESSION NUMBER: 1988:76909 HCAPLUS
DOCUMENT NUMBER: 108:76909
TITLE: Peroxide-vulcanizable fluoro rubbers made by telomerization with polyhalides

INVENTOR(S): Tatsu, Haruyoshi; Okabe, Jun; Naraki, Akihiro; Abe, Masatoshi; Ebina, Yoshiaki
PATENT ASSIGNEE(S): Nippon Mectron Co., Ltd., Japan
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3710819	A1	19871008	DE 1987-3710819	19870401
DE 3710819	C2	19941124		
JP 62232407	A2	19871012	JP 1986-74484	19860401
JP 01016844	B4	19890328		
US 4774302	A	19880927	US 1987-25053	19870312
PRIORITY APPLN. INFO.:			JP 1986-74484 A	19860401

=> S 112707-55-8
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Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L13 2 L12

=> D L13 1-2 ABS IBIB

L13 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Title rubbers, with good processability and flow and giving vulcanizates with good mech. properties, are prepared by polymerizing fluoroolefins in the presence of aromatic polyfluorides, polybromides, or polyiodides. Emulsion telomerization of CH2:CF2 69, C2F4 20, and CF2:CFOCF3 11 mol in the presence of 1 g (NH4)2S2O8 and 8.3 g 1,4-C6F4(CF2CF2I)2 (I) at 80° for 24 h gave a rubber with I2 content 0.32% and intrinsic viscosity (MEK, 35°) 0.92, giving peroxide vulcanizates with JIS A hardness 66, 100% modulus 29 kg/cm2, tensile strength 141 kg/cm2, elongation 240%, and compression set 32%; vs. 0.39, 0.31 (Br), 66, -, 43, 90, and >100 [sic], resp., with C2BrF3 in place of I.
ACCESSION NUMBER: 1988:76909 HCAPLUS
DOCUMENT NUMBER: 108:76909
TITLE: Peroxide-vulcanizable fluoro rubbers made by telomerization with polyhalides
INVENTOR(S): Tatsu, Haruyoshi; Okabe, Jun; Naraki, Akihiro; Abe, Masatoshi; Ebina, Yoshiaki
PATENT ASSIGNEE(S): Nippon Mectron Co., Ltd., Japan
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3710819	A1	19871008	DE 1987-3710819	19870401

DE 3710819	C2	19941124			
JP 62232407	A2	19871012	JP 1986-74484		19860401
JP 01016844	B4	19890328			
US 4774302	A	19880927	US 1987-25053		19870312
PRIORITY APPLN. INFO.:			JP 1986-74484	A	19860401

L13 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The title rubbers, with good processability, flow, and phys. properties, are prepared by polymerizing fluoroolefins in the presence of the halides RBrnIm (R = hydrocarbyl, optionally bearing Cl and/or F atoms; n, m = 1 or 2). Emulsion polymerization of CH2:CF2, C3F6, and C2F4 in mol ratio 42:38:20 in the presence of 2.0 g BrCF2CF2I at 80° for 3 h gave 508 g polymer with intrinsic viscosity (MEK, 35°) 0.68 and Br + I content 0.25%, giving vulcanizates with JIS A hardness 72, 100% modulus 30 bar, tensile strength 260 bar, elongation 480%, and compression set 31%.

ACCESSION NUMBER: 1988:76908 HCAPLUS
DOCUMENT NUMBER: 108:76908
TITLE: Peroxide-vulcanizable fluororubbers
INVENTOR(S): Tatsu, Haruyoshi; Okabe, Jun; Naraki, Akihiro; Abe, Masatoshi; Ebina, Yoshiaki
PATENT ASSIGNEE(S): Nippon Mecktron Co., Ltd., Japan
SOURCE: Ger. Offen., 11 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 3710818	A1	19871008	DE 1987-3710818		19870401
DE 3710818	C2	19931021			
US 4748223	A	19880531	US 1987-25191		19870312
JP 63308008	A2	19881215	JP 1987-58145		19870313
JP 01057125	B4	19891204			
PRIORITY APPLN. INFO.:			JP 1986-74483	A	19860401
			JP 1987-21591	A	19870130

=> S 32218-15-8
REGISTRY INITIATED
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L15 3 L14

=> D L15 1-3 ABS IBIB

L15 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

AB A heat-resistant poly-α,α,2,3,5,6-hexafluoro-p-xylylene (I) [34521-30-7] film was prepared by heating potassium 4-trifluoromethyl-2,3,5,6-tetrafluorophenyl acetate (II) [32251-54-0] at 250.deg. to form gaseous 2,3,5,6,7,7-hexafluoro-p-quinodimethane [37510-06-8] which polymerized to form I film on a cold surface. Thus, 22.6 g ethyl cyanoacetate [105-56-6] was treated with 5.0 g sodium hydride [7646-69-7] and 23.6 g octafluorotoluene [434-64-0] to give 28 g ethyl (4-trifluoromethyl-2,3,5,6-

tetrafluorophenyl)cyanoacetate (III) [32251-53-9]. II was hydrolyzed 5 hr with 80 ml H2SO4 to give 4-trifluoromethyl-2,3,5,6-tetrafluorophenylacetic acid [32304-29-3], which was treated with KOH to give II. II was heated at 250.deg. to give I, which was a clear, flexible, crystalline film and had a weight loss 17% when heated 20 min at 500.deg..

ACCESSION NUMBER: 1973:467065 HCAPLUS
DOCUMENT NUMBER: 79:67065
TITLE: Poly(2,2,2,3,5,6-hexafluoro-p-xylylene)
INVENTOR(S): Norris, William P.
PATENT ASSIGNEE(S): United States Dept. of the Navy
SOURCE: U.S., 2 pp. Division of U.S. 3,636,032 (CA 76;99403n).
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3732278		19730508	US 1968-723908	19680424

L15 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Thermally stable, inert poly(α,α,2,3,5,6-hexafluoro-p-xylylene) (I) [34521-30-7] was prepared by polymerization of 2,3,5,6,7,7-hexafluoro-p-quinodimethan [37510-06-8] which was obtained in situ by heating potassium 4-trifluoromethyl-2,3,5,6-tetrafluorophenylacetate (II) [32251-54-0] at 250.deg./0.01 mm; a 0.4 mm thick I film was clear and pliable and showed 17% weight after 20 min at 500.deg.. Thus, 23.6 g C6F5CF3 was treated with 22.6 g EtO2CCH2CN and 5 g NaH in 75 ml DMF at 25 +- 0.5.deg. and the mixture worked up to give 28 g p-CF3C6F4CH(CN)CO2Et, which was refluxed 5 hr with HOAc 50, H2SO4 80, and H2O 50 ml to give 18 g p-CF3C6F4CH2CO2H (III). Treatment of III with 50% KOH gave II.

ACCESSION NUMBER: 1973:44235 HCAPLUS
DOCUMENT NUMBER: 78:44235
TITLE: Poly(α,α2,3,5,6-Hexafluoro-p-xylylene)
INVENTOR(S): Norris, William P.
PATENT ASSIGNEE(S): United States Dept. of the Navy
SOURCE: U.S., 3 pp. Division of U.S. 3,626,032 (CA 76;100379t).
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 3694495	A	19720926	US 1970-94539		19701202
PRIORITY APPLN. INFO.:			US 1970-94539	A	19701202

L15 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB Octafluorotoluene reacts with sodio ethyl cyanoacetate in DMF to give Et (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)cyanoacetate which may be hydrolyzed and decarboxylated to (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)acetic acid. Pyrolysis of K (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)acetate at 250°/0.01 mm causes 1,6-elimination of CO2 and fluoride to give α,α,2,3,5,6-hexafluoro-p-xylylene which polymerizes upon condensation to poly-α,α,2,3,5,6-hexafluoro-p-xylylene (I).

ACCESSION NUMBER: 1972:500959 HCAPLUS

DOCUMENT NUMBER: 77:100959
TITLE: Poly(α,α,2,3,5,6-hexafluoro-p-xylylene)
AUTHOR(S): Norris, William P.
CORPORATE SOURCE: Res. Dep., Nav. Weapons Cent., China Lake, CA, USA
SOURCE: Journal of Organic Chemistry (1972), 37(1), 147-8
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English

=> S 32218-15-8
REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L17 3 L16

=> D L17 1-3 ABS IBIB

L17 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
AB A heat-resistant poly-α,α,2,3,5,6-hexafluoro-p-xylylene (I) [34521-30-7] film was prepared by heating potassium 4-trifluoromethyl-2,3,5,6-tetrafluorophenyl acetate (II) [32251-54-0] at 250.deg. to form gaseous 2,3,5,6,7,7-hexafluoro-p-quinodimethane [37510-06-8] which polymerized to form I film on a cold surface. Thus, 22.6 g ethyl cyanoacetate [105-56-6] was treated with 5.0 g sodium hydride [7646-69-7] and 23.6 g octafluorotoluene [434-64-0] to give 28 g ethyl (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)cyanoacetate (III) [32251-53-9]. II was hydrolyzed 5 hr with 80 ml H2SO4 to give 4-trifluoromethyl-2,3,5,6-tetrafluorophenylacetic acid [32304-29-3], which was treated with KOH to give II. II was heated at 250.deg. to give I, which was a clear, flexible, crystalline film and had a weight loss 17% when heated 20 min at 500.deg..
ACCESSION NUMBER: 1973:467065 HCAPLUS
DOCUMENT NUMBER: 79:67065
TITLE: Poly(2,2,2,3,5,6-hexafluoro-p-xylylene)
INVENTOR(S): Norris, William P.
PATENT ASSIGNEE(S): United States Dept. of the Navy
SOURCE: U.S., 2 pp. Division of U.S. 3,636,032 (CA 76;99403n).
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3732278		19730508	US 1968-723908	19680424

L17 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Thermally stable, inert poly(α,α,2,3,5,6-hexafluoro-p-xylylene) (I) [34521-30-7] was prepared by polymerization of 2,3,5,6,7,7-hexafluoro-p-quinodimethan [37510-06-8] which was obtained in situ by heating potassium 4-trifluoromethyl-2,3,5,6-tetrafluorophenylacetate (II) [32251-54-0] at 250.deg./0.01 mm; a 0.4 mm thick I film was clear and pliable and showed 17% weight after 20 min at 500.deg.. Thus, 23.6 g C6F5CF3

was treated with 22.6 g EtO2CCH2CN and 5 g NaH in 75 ml DMF at 25 +- 0.5.deg. and the mixture worked up to give 28 g p-CF3C6F4CH(CN)CO2Et, which was refluxed 5 hr with HOAc 50, H2SO4 80, and H2O 50 ml to give 18 g p-CF3C6F4CH2CO2H (III). Treatment of III with 50% KOH gave II.

ACCESSION NUMBER: 1973:44235 HCAPLUS
DOCUMENT NUMBER: 78:44235
TITLE: Poly(α,α2,3,5,6-Hexafluoro-p-xylylene)
INVENTOR(S): Norris, William P.
PATENT ASSIGNEE(S): United States Dept. of the Navy
SOURCE: U.S., 3 pp. Division of U.S. 3,626,032 (CA 76;100379t).
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 3694495	A	19720926	US 1970-94539		19701202
PRIORITY APPLN. INFO.:			US 1970-94539	A	19701202

L17 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB Octafluorotoluene reacts with sodio ethyl cyanoacetate in DMF to give Et (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)cyanoacetate which may be hydrolyzed and decarboxylated to (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)acetic acid. Pyrolysis of K (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)acetate at 250°/0.01 mm causes 1,6-elimination of CO2 and fluoride to give α,α,2,3,5,6-hexafluoro-p-xylylene which polymerizes upon condensation to poly-α,α,2,3,5,6-hexafluoro-p-xylylene (I).

ACCESSION NUMBER: 1972:500959 HCAPLUS
DOCUMENT NUMBER: 77:100959
TITLE: Poly(α,α,2,3,5,6-hexafluoro-p-xylylene)
AUTHOR(S): Norris, William P.
CORPORATE SOURCE: Res. Dep., Nav. Weapons Cent., China Lake, CA, USA
SOURCE: Journal of Organic Chemistry (1972), 37(1), 147-8
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English

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NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
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NEWS EXPRESS	JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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=> FILE HCAPLUS

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=> S 178954-63-7
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L2 1 L1

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=> FIL STNGUIDE

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FULL ESTIMATED COST	0.21	0.21

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LAST RELOADED: Mar 4, 2005 (20050304/UP).

=> FILE CASREACT

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

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provided by InfoChem, INPI data prior to 1986, and Biotransformations
database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance
identification.

=> S 229976-92-5
L1 0 229976-92-5

=> FILE HCAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	6.70	6.97

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FILE COVERS 1907 - 10 Mar 2005 VOL 142 ISS 11
FILE LAST UPDATED: 9 Mar 2005 (20050309/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> S 229976-92-5
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Substance data SEARCH and crossover from CAS REGISTRY in progress...
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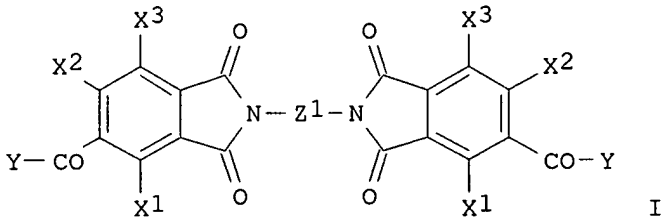
L3 1 L2

=> D L3 ABS IBIB

L3 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I

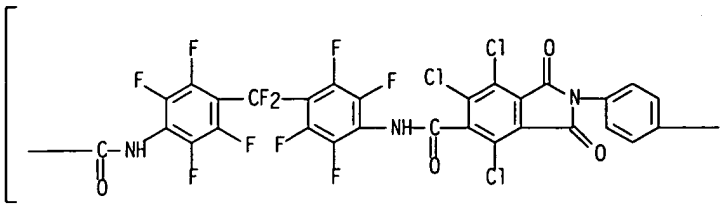
AB Polyamide-polyimides for the title use are manufactured by polymerization of H2NZNH2 [Z = = divalent halo(cyclo)aliphatic group or divalent haloarom. group] with bisimides I [X1, X2, X3 = halo, haloalkyl, haloalkoxy, haloaryl, NO2, OR1, or SR1, R1 = haloalkyl or haloaryl, Z1 = divalent halo(cyclo)aliphatic group or divalent haloarom. group, Y = halo].

ACCESSION NUMBER: 1999:440135 HCAPLUS
DOCUMENT NUMBER: 131:88337
TITLE: Polyamide-polyimides for optical communication industry and method for their preparation
INVENTOR(S): Suh, Dong-Hack; Chung, Eun-Young; Rhee, Tae-Hyung
PATENT ASSIGNEE(S): Samsung Electronics Co. Ltd., S. Korea; Korea Research Institute of Chemical Technology
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

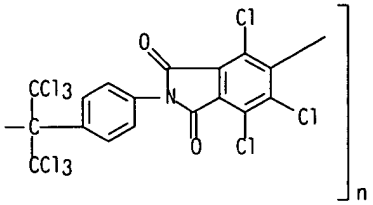
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19860845	A1	19990708	DE 1998-19860845	19981231
CN 1224030	A	19990728	CN 1998-125197	19981208
CN 1226571	A	19990825	CN 1998-111793	19981230
GB 2332910	A1	19990707	GB 1998-28862	19981231
GB 2332910	B2	20000308		
US 6028159	A	20000222	US 1998-223728	19981231

JP 11255897	A2	19990921	JP 1999-229		19990104
JP 2994373	B2	19991227			
PRIORITY APPLN. INFO.:			KR 1997-82004	A	19971231

PAGE 1-A



PAGE 1-B



L19 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:172357 HCAPLUS
DN 126:172028
ED Entered STN: 14 Mar 1997
TI Manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber
IN Sonoi, Takehiro; Tatsu, Haruyoshi; Saito, Satoru; Sterlin, Sergei Rafailovic; Cerstokov, Victor Filippovic; Delyagina, Nina Ivanovna
PA Nippon Mektron, Ltd., Japan
SO Ger. Offen., 7 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07C323-07
ICS C07C319-02; C08K005-375; C08L027-18
ICA C08F214-18; C08F216-14; C08F214-26
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 39
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19625376	A1	19970109	DE 1996-19625376	19960625 <--
	JP 09020752	A2	19970121	JP 1995-196108	19950707 <--
	US 5891964	A	19990406	US 1996-675603	19960703 <--
	US 5998564	A	19991207	US 1999-235966	19990122 <--
PRAI	JP 1995-196108	A	19950707	<--	
	US 1996-675603	A3	19960703	<--	
	US 1998-6717	A1	19980114		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19625376	ICM	C07C323-07
	ICS	C07C319-02; C08K005-375; C08L027-18
	ICA	C08F214-18; C08F216-14; C08F214-26
DE 19625376	ECLA	C07C303/08; C07C309/39; C07C319/02; C08K005/37+L27/12 <--
US 5891964	ECLA	C07C303/08; C07C309/39; C07C319/02; C08K005/37+L27/12 <--
US 5998564	ECLA	C08K005/375+L27/12 <--

X year 1997

OS MARPAT 126:172028

AB 3-SHC6H4ZC6H4SH-3 (I; Z = C1-10 perfluoroalkylidene) are manufactured by reduction of bis(chlorosulfonylphenyl) analogs 3-ClO2SC6H4ZC6H4SO2Cl-3 with Zn in the presence of acids. Thus, chlorosulfonation of CF3CPh2CF3 with ClSO3H gave 3-ClO2SC6H4C(CF3)2C6H4SO2Cl-3 which was reduced with Zn/HCl to give 3-HSC6H4C(CF3)2C6H4SH-3 (Bisthiophenol AF) which was used to vulcanize 4-(4-fluorophenyl)-1,1,2,2,3,3,4,4-octafluorobutyl trifluorovinyl ether-perfluoro(Me vinyl ether)-tetrafluoroethylene copolymer rubber. Fluoro rubber compns. containing halophenyl groups as crosslinking sites and I as crosslinking agents are also claimed.

ST thiophenylperfluoroalkylidene manuf crosslinking agent; phenylhexafluoropropane sulfonation crosslinking agent manuf; chlorosulfonylphenylhexafluoropropane manuf redn zinc; zinc hydrochloric acid redn bishlorosulfonylphenylhexafluoropropane; mercaptophenylhexafluoropropane manuf vulcanization fluoro rubber; fluoro rubber vulcanization bismercaptophenylhexafluoropropane

IT Crosslinking agents
(2,2'-bis(3-mercaptophenyl)hexafluoropropane; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT Fluoro rubber
RL: MSC (Miscellaneous)
(crosslinked; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT Perfluoro compounds
Perfluoro compounds
Vinyl compounds, preparation
Vinyl compounds, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(perfluoroalkyl vinyl ether polymers, with tetrafluoroethylene, rubbers, crosslinked; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT Ethers, preparation
Ethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(perfluoroalkyl vinyl, polymers, with tetrafluoroethylene, rubbers, crosslinked; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT Ethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(vinyl, perfluoroalkyl, polymers, with tetrafluoroethylene, rubbers, crosslinked; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT 7790-94-5, Chlorosulfonic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(chlorosulfonation of 2,2'-bisphenylhexafluoropropane; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT 83558-76-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(chlorosulfonation of; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT 93129-82-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(crosslinking agent; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT 186972-14-5
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agent; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT 186972-13-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture and reduction with Zn/HCl; manufacture of bis(thiophenyl)perfluoroalkyli

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NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
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NEWS	19	FEB 16	STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005
NEWS	20	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	21	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	22	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	23	MAR 02	GBFULL: New full-text patent database on STN
NEWS	24	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	25	MAR 03	MEDLINE file segment of TOXCENTER reloaded

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FULL ESTIMATED COST	0.21	0.21

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LAST RELOADED: Mar 4, 2005 (20050304/UP).

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 10 Mar 2005 VOL 142 ISS 11
FILE LAST UPDATED: 9 Mar 2005 (20050309/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 178971-87-4/rn
2 178971-87-4
0 178971-87-4D
L1 2 178971-87-4/RN
(178971-87-4 (NOTL) 178971-87-4D)

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L2 NOT FOUND
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=> d l1 1-2 abs ibib

L1 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

AB 3-SHC6H4ZC6H4SH-3 (I; Z = C1-10 perfluoroalkylidene) are manufactured by reduction of bis(chlorosulfonylphenyl) analogs 3-ClO2SC6H4ZC6H4SO2Cl-3 with Zn in the presence of acids. Thus, chlorosulfonation of CF3CPh2CF3 with ClSO3H gave 3-ClO2SC6H4C(CF3)2C6H4SO2Cl-3 which was reduced with Zn/HCl to give 3-HSC6H4C(CF3)2C6H4SH-3 (Bisthiophenol AF) which was used to vulcanize 4-(4-fluorophenyl)-1,1,2,2,3,3,4,4-octafluorobutyl trifluorovinyl ether-perfluoro(Me vinyl ether)-tetrafluoroethylene copolymer rubber. Fluoro rubber compns. containing halophenyl groups as crosslinking sites and I as crosslinking agents are also claimed.

ACCESSION NUMBER: 1997:172357 HCAPLUS
DOCUMENT NUMBER: 126:172028
TITLE: Manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber
INVENTOR(S): Sonoi, Takehiro; Tatsu, Haruyoshi; Saito, Satoru; Sterlin, Sergei Rafailovic; Cerstokov, Victor Filippovic; Delyagina, Nina Ivanovna
PATENT ASSIGNEE(S): Nippon Mektron, Ltd., Japan
SOURCE: Ger. Offen., 7 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19625376	A1	19970109	DE 1996-19625376	19960625
JP 09020752	A2	19970121	JP 1995-196108	19950707
US 5891964	A	19990406	US 1996-675603	19960703
US 5998564	A	19991207	US 1999-235966	19990122
PRIORITY APPLN. INFO.:			JP 1995-196108 A	19950707
			US 1996-675603 A3	19960703
			US 1998-6717 A1	19980114

OTHER SOURCE(S): MARPAT 126:172028

L1 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Bifunctional monomers such as F2C:CFO(CF2)4-p-C6H4X (I; X = F, Cl) are prepared and used in copolymers (e.g., with F2C:CF2 and F2C:CFOCF3) which are crosslinkable by reaction of the XC6H4 groups. I (X = F) was prepared by chlorinating the double bond of F2C:CFO(CF2)3CO2Me, converting the product to the acid chloride ClCF2CClFO(CF2)3COCl, treating this compound with PhF and SF4 (to convert the keto group to a CF2 group) to give ClCF2CClFO(CF2)3CO-p-C6H4F, and dechlorinating this compound

ACCESSION NUMBER: 1996:446454 HCAPLUS
DOCUMENT NUMBER: 125:87438
TITLE: Bifunctional (4-halophenyl)perfluoroalkyl perfluorovinyl ethers for use in curable fluoropolymers
INVENTOR(S): Filippovic, Cherstokov Victor; Rafailovic, Sterlin Sergei; Solomonovic, German Lev; Lin, Jenq-Tain; Saito, Satoru; Tatsu, Haruyoshi
PATENT ASSIGNEE(S): Nippon Mektron, Ltd., Japan
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 19537997	A1	19960523	DE 1995-19537997		19951012
JP 08193042	A2	19960730	JP 1995-200357		19950713
US 5616813	A	19970401	US 1995-551272		19951031
PRIORITY APPLN. INFO.:			JP 1994-308198	A	19941117
			JP 1995-200357	A	19950713
OTHER SOURCE(S):	MARPAT 125:87438				

denes as crosslinking agents for fluoro rubber)

IT 7440-66-6, Zinc, uses
RL: NUU (Other use, unclassified); USES (Uses)
(powder; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents by reduction of bis(chlorosulfonylphenyl) analogs)

IT **178971-87-4P**, 4-(4-Fluorophenyl)-1,1,2,2,3,3,4,4-tetrafluorobutyl trifluorovinyl ether-perfluoro(methyl vinyl ether)-tetrafluoroethylene copolymer 178971-88-5P, 4-(4-Chlorophenyl)-1,1,2,2,3,3,4,4-tetrafluorobutyl trifluorovinyl ether-perfluoro(methyl vinyl ether)-tetrafluoroethylene copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(rubber, crosslinked with 2,2'-(3-mercaptophenyl)hexafluoropropane dipotassium salt; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

IT 116-14-3DP, Tetrafluoroethylene, polymers with perfluoroalkyl vinyl ethers
RL: SPN (Synthetic preparation); PREP (Preparation)
(rubbers, crosslinked; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

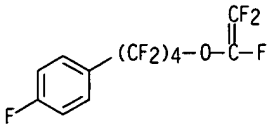
IT **178971-87-4P**, 4-(4-Fluorophenyl)-1,1,2,2,3,3,4,4-tetrafluorobutyl trifluorovinyl ether-perfluoro(methyl vinyl ether)-tetrafluoroethylene copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(rubber, crosslinked with 2,2'-(3-mercaptophenyl)hexafluoropropane dipotassium salt; manufacture of bis(thiophenyl)perfluoroalkylidenes as crosslinking agents for fluoro rubber)

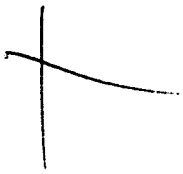
RN 178971-87-4 HCAPLUS

CN Benzene, 1-fluoro-4-[1,1,2,2,3,3,4,4-octafluoro-4-[(trifluoroethenyl)oxy]butyl]-, polymer with tetrafluoroethene and trifluoromethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 178971-83-0
CMF C12 H4 F12 O





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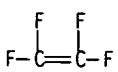
CRN 3823-94-7
CMF C3 H3 F3 O

CM 3

CRN 116-14-3
CMF C2 F4



L19 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:449290 HCAPLUS
DN 125:88890
ED Entered STN: 30 Jul 1996
TI Preparation of fluoroelastomers with improved vulcanization velocity
IN Saito, Satoshi; Tatsu, Harumi; Refu, Soromonobitsuchi Geruman
PA Nippon Mektron Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F214-26
ICS C08F216-12
CC 39-2 (Synthetic Elastomers and Natural Rubber)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08104719	A2	19960423	JP 1994-266246	19941004 <--
US 5589559	A	19961231	US 1995-538936	19951004 <--
PRAI JP 1994-266246	A	19941004 <--		

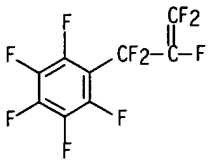
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08104719	ICM	C08F214-26
	ICS	C08F216-12

AB Title fluoroelastomers [intrinsic viscosity (.eta.) 0.1-2.0 dL/g] consist of C2F4 50-80, perfluoro(lower alkyl vinyl ether) 20-45, and perfluoroallylbenzene (I) 0.1-2 mol%. Thus, C2F4 22, CF3OCF:CF2 (II) 92, and I 10 g were copolymd. at 50.degree. for 6 h under N in H2O in the presence of Na2HPO4.12H2O, C7F15CO2NH4, Na2SO3, and (NH4)2S2O8 to obtain 10 g 0.4:55.8:43.8 (mol) I-C2F4-II copolymer (.eta. 0.5 dL/g), 100 parts of which was mixed with dicyclohexyl-18-crown-6 2, carbon black 10, bisphenol AF dipotassium salt 3, and MgO 4 parts to show torque change 2.9 kg-cm (180.degree.).
ST vulcanization velocity improvement fluoroelastomer prepn; perfluoroethylene copolymn fluoroelastomer prepn; perfluoromethyl perfluorovinyl ether copolymn fluoroelastomer; perflruoroallylbenzene copolymn fluoroelastomer prepn
IT Ethers, preparation
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(lower alkyl vinyl, perfluoro-, polymers with perfluoroethylene and perfluoroallylbenzene; preparation of fluoroelastomers with improved vulcanization velocity)
IT Vulcanization
(preparation of fluoroelastomers with improved vulcanization velocity)
IT Rubber, synthetic
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(perfluoro, preparation of fluoroelastomers with improved vulcanization velocity)
IT **178954-63-7P**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of fluoroelastomers with improved vulcanization velocity)
IT **178954-63-7P**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of fluoroelastomers with improved vulcanization velocity)
RN 178954-63-7 HCAPLUS
CN Benzene, pentafluoro(1,1,2,3,3-pentafluoro-2-propenyl)-, polymer with tetrafluoroethene and trifluoro(trifluoromethoxy)ethene (9CI) (CA INDEX NAME)

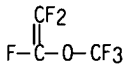
CM 1

CRN 67899-41-6
CMF C9 F10



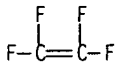
CM 2

CRN 1187-93-5
CMF C3 F6 O



CM 3

CRN 116-14-3
CMF C2 F4



L19 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:446454 HCAPLUS
DN 125:87438
ED Entered STN: 30 Jul 1996
TI Bifunctional (4-halophenyl)perfluoroalkyl perfluorovinyl ethers for use in curable fluoropolymers
IN Filippovic, Cherstokov Victor; Rafailovic, Sterlin Sergei; Solomonovic, German Lev; Lin, Jenq-Tain; Saito, Satoru; Tatsu, Haruyoshi
PA Nippon Mektron, Ltd., Japan
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C08F216-14
ICS C08F214-18; C07C057-76; C07C049-84; C07C045-46; C07C043-17; C07C041-24
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 25, 37, 39
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19537997	A1	19960523	DE 1995-19537997	19951012 <--
	JP 08193042	A2	19960730	JP 1995-200357	19950713 <--
	US 5616813	A	19970401	US 1995-551272	19951031 <--
PRAI	JP 1994-308198	A	19941117	<--	
	JP 1995-200357	A	19950713	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

DE 19537997 ICM C08F216-14
ICS C08F214-18; C07C057-76; C07C049-84; C07C045-46; C07C043-17; C07C041-24
DE 19537997 ECLA C07C043/176; C07C045/46+49/84; C07C049/84; C07C059/135; C07C059/60; C08F016/24; C08F214/26D; C08F026/14 <--
US 5616813 ECLA C07C043/176; C07C045/46+49/84; C07C049/84; C07C059/135; C08F016/24; C08F214/26D <--

OS MARPAT 125:87438

AB Bifunctional monomers such as F2C:CFO(CF2)4-p-C6H4X (I; X = F, Cl) are prepared and used in copolymers (e.g., with F2C:CF2 and F2C:CFOCF3) which are crosslinkable by reaction of the XC6H4 groups. I (X = F) was prepared by chlorinating the double bond of F2C:CFO(CF2)3CO2Me, converting the product to the acid chloride ClCF2CClFO(CF2)3COCl, treating this compound with PhF and SF4 (to convert the keto group to a CF2 group) to give ClCF2CClFO(CF2)3CO-p-C6H4F, and dechlorinating this compound

ST fluorovinyl halophenylfluoroalkyl ether prepn copolymer crosslinking; fluorophenylperfluoroalkyl fluorovinyl ether prepn copolymer crosslinking; chlorophenylperfluoroalkyl fluorovinyl ether prepn copolymer crosslinking; crosslinking fluoropolymer fluorovinyl halophenylfluoroalkyl ether; tetrafluoroethylene fluorovinyl halophenylfluoroalkyl ether copolymer crosslinking; rubber fluoro fluorovinyl halophenylfluoroalkyl ether vulcanization

IT Fluoropolymers
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of (halophenyl)perfluoroalkyl perfluorovinyl ethers for use in crosslinkable)

IT Crosslinking
(preparation of (halophenyl)perfluoroalkyl perfluorovinyl ethers for use in crosslinkable fluoropolymers)

IT Monomers
Vinyl compounds, preparation
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(preparation of (halophenyl)perfluoroalkyl perfluorovinyl ethers for use in crosslinkable fluoropolymers)

IT Vulcanization
(preparation of (halophenyl)perfluoroalkyl perfluorovinyl ethers for use in vulcanizable fluoropolymers)

IT Rubber, synthetic
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(fluoro, preparation of (halophenyl)perfluoroalkyl perfluorovinyl ethers for use in vulcanizable)

IT 19190-61-5, Methyl perfluoro(4-vinyloxybutyrate)
RL: RCT (Reactant); RACT (Reactant or reagent)
(chlorination of double bond of)

IT 178971-84-1P, Perfluoro(4-vinyloxybutyric acid chloride)
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(conversion to acid chloride)

IT 73727-54-5, Perfluoro(4-vinyloxybutyric acid)
RL: RCT (Reactant); RACT (Reactant or reagent)
(conversion to acid chloride)

IT 178971-81-8P 178971-85-2P, p-Chlorophenyl perfluoro(3-vinyloxypropyl) ketone
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and conversion of keto group to difluoromethylene group)

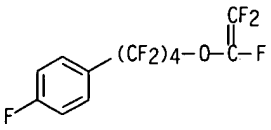
IT 86556-81-2P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and conversion to acid chloride)

IT 178971-82-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation and dechlorination to give trifluorovinyl group)
IT 86556-80-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of ester group)
IT 178971-80-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with fluorobenzene)
IT **178971-87-4P**, 4-(4-Fluorophenyl)-1,1,2,2,3,3,4,4-tetrafluorobutyl trifluorovinyl ether-perfluoro(methyl vinyl ether)-tetrafluoroethylene copolymer 178971-88-5P, 4-(4-Chlorophenyl)-1,1,2,2,3,3,4,4-tetrafluorobutyl trifluorovinyl ether-perfluoro(methyl vinyl ether)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
(preparation and vulcanization of elastomeric)
IT 178971-83-0P 178971-86-3P, 4-(4-Chlorophenyl)-1,1,2,2,3,3,4,4-tetrafluorobutyl trifluorovinyl ether
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation for use in crosslinkable fluoropolymers)
IT 462-06-6, Fluorobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with (dichlorotrifluoroethoxy)hexafluorobutanoyl chloride)
IT 108-90-7, Chlorobenzene, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with perfluoro(vinyloxybutanoyl chloride))
IT **178971-87-4P**, 4-(4-Fluorophenyl)-1,1,2,2,3,3,4,4-tetrafluorobutyl trifluorovinyl ether-perfluoro(methyl vinyl ether)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
(preparation and vulcanization of elastomeric)
RN 178971-87-4 HCAPLUS
CN Benzene, 1-fluoro-4-[1,1,2,2,3,3,4,4-octafluoro-4-[(trifluoroethenyl)oxy]butyl]-, polymer with tetrafluoroethene and trifluoromethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 178971-83-0
CMF C12 H4 F12 O

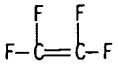


CM 2

CRN 3823-94-7
CMF C3 H3 F3 O

CM 3

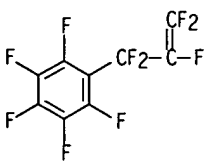
CRN 116-14-3
CMF C2 F4



L19 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:245894 HCAPLUS
DN 120:245894
ED Entered STN: 14 May 1994
TI Polymerization of polyfluorinated styrenes in glow-discharge plasma
AU Gil'man, A. B.; Shifrina, R. R.; Dvornikova, K. A.; Platonov, V. E.
CS Nauchno-Issled. Fiz.-Khim. Inst. im. L. Ya. Karpova, Moscow, 103064, Russia
SO Khimiya Vysokikh Energii (1994), 28(1), 84-7
CODEN: KHVKAO; ISSN: 0023-1193
DT Journal
LA Russian
CC 35-4 (Chemistry of Synthetic High Polymers)
AB Perfluoro-.alpha.-methylstyrene, perfluoro-.beta.-methylstyrene, perfluoroallylbenzene, .alpha.-chloroperfluorostyrene, .alpha.,p-dichlorohexafluorostyrene, and .alpha.,.beta.-dichloroperfluorostyrene were polymerized in glow-discharge plasma. Rate of film formation and IR spectra of monomers and polymers are given, and various possible mechanisms of polymerization are discussed.
ST perfluorinated styrene deriv plasma polymn
IT Polymerization
(plasma, of polyfluorinated styrenes, rates and mechanism of)
IT 81313-10-2P, .alpha.-Chloroperfluorostyrene homopolymer 154605-78-4P, Perfluoro-.alpha.-methylstyrene homopolymer **154605-79-5P**, Perfluoroallylbenzene homopolymer 154605-80-8P, Perfluoro-.beta.-methylstyrene homopolymer 154605-81-9P, .alpha.,p-Dichlorohexafluorostyrene homopolymer 154605-82-0P, .alpha.,.beta.-Dichloroperfluorostyrene homopolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in glow-discharge plasma)
IT **154605-79-5P**, Perfluoroallylbenzene homopolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in glow-discharge plasma)
RN 154605-79-5 HCAPLUS
CN Benzene, pentafluoro(1,1,2,3,3-pentafluoro-2-propenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 67899-41-6
CMF C9 F10

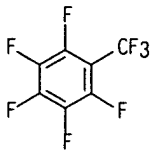


L19 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:496638 HCAPLUS

DN 119:96638
ED Entered STN: 04 Sep 1993
TI The characterization of plasma polymers by XPS and static SIMS
AU Munro, H. S.; Ward, R. J.; Davies, M. C.; Short, R. D.
CS Dep. Chem., Univ. Durham, Durham, DH1 3LE, UK
SO Polymer (**1993**), 34(11), 2250-5
CODEN: POLMAG; ISSN: 0032-3861
DT Journal
LA English
CC 36-4 (Physical Properties of Synthetic High Polymers)
AB XPS and static secondary ion mass spectrometry (SIMS) were used to characterize plasma polymers of perfluorobenzene (I), perfluorotoluene (II), perfluorocyclohexene (III), perfluorocyclohexane (IV), and C6H6. The plasma polymers of I and II appear to be based on a perfluoroalkylbenzene-type structure, with lesser amount of other ring systems and very few aliphatic chains. The polymers derived from III and IV were much more aliphatic in nature, with fewer aromatic and other ring systems. The SIMS anal. of plasma-polymerized C6H6 was almost identical to that of polystyrene, but this probably does not reflect the true nature of the plasma polymer.
ST plasma polymer benzene deriv characterization
IT 25053-22-9, Benzene homopolymer 31668-87-8, Perfluorobenzene homopolymer 73231-55-7, Perfluorocyclohexane homopolymer 73593-15-4, Perfluorocyclohexene homopolymer **81313-09-9**, Perfluorotoluene homopolymer
RL: PRP (Properties)
(characterization of, by SIMS and XPS, plasma-polymerized)
IT **81313-09-9**, Perfluorotoluene homopolymer
RL: PRP (Properties)
(characterization of, by SIMS and XPS, plasma-polymerized)
RN 81313-09-9 HCAPLUS
CN Benzene, pentafluoro(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 434-64-0
CMF C7 F8



L19 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:428742 HCAPLUS
DN 119:28742
ED Entered STN: 24 Jul 1993
TI Cyclic ureas as solvents for poly(aryl ether) synthesis
AU Labadie, J. W.; Carter, K. R.; Hedrick, J. L.; Jonsson, H.; Kim, S. Y.; Twieg, R. J.
CS Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6077, USA
SO Polymer Bulletin (Berlin, Germany) (**1993**), 30(1), 25-31
CODEN: POBUDR; ISSN: 0170-0839
DT Journal
LA English
CC 35-7 (Chemistry of Synthetic High Polymers)
AB The synthesis of various poly(aryl ethers) and related small mol. compds. were examined using the cyclic urea 1,3-Dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone (N,N'-dimethylpropylene urea, DMPU) as the solvent.

Generally higher mol. weight or yields were obtained under less stringent conditions, as compared to other common polymerization solvents. The enhancement was most notable for polymns. involving aryl fluorides with a lower reactivity than conventionally activated dihalide monomers, e.g. ketones, sulfones. Poly(aryl ethers) displayed excellent solubility in DMPU, which was beneficial in the cases where more rigid heterocyclic-aryl ether polymers are formed.

ST fluorine displacement polymn DMPU solvent; polyoxypneylene synthesis dimethylpropylene urea solvent; polyaryl ether synthesis DMPU; polytriazole arom polyether synthesis DMPU; polyphenyquinoxaline arom polyether synthesis DMPU; polybenzoxazole arom polyether synthesis DMPU; polybenzimidazole arom polyether synthesis DMPU

IT Polymerization
(of fluoroarom. compds. with phenols, DMPU solvent effect on)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(triazole group-containing, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorine-containing, triazole group-containing, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polybenzimidazole-, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polybenzoxazole-, preparation in DMPU solvent and intrinsic viscosity of)

IT Polybenzimidazoles
Polybenzoxazoles
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, preparation in DMPU solvent and intrinsic viscosity of)

IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, triazole group-containing, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyketones
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aromatic, fluorine-containing, preparation in DMPU solvent and intrinsic viscosity of)

IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketone-, aromatic, preparation in DMPU solvent and intrinsic viscosity of)

IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyphenylquinoxaline-, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, aromatic, fluorine-containing, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-, fluorine-containing, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyquinoxalines
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, polyether-, preparation in DMPU solvent and intrinsic viscosity of)

IT Polyquinoxalines
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, polyether-, fluorine-containing, preparation in DMPU solvent and intrinsic viscosity of)

IT **136776-32-4P** 138454-02-1P, 2,3-Bis(fluorophenylquinoxaline)-2,2-di(4-hydroxyphenyl)hexafluoropropane copolymer, SRU 146847-06-5P, 3,5-Bis(4-fluorophenyl)-4-phenyl-1,2,4-triazole-bisphenol A copolymer, SRU 146847-07-6P, 3,5-Bis(4-fluorophenyl)-4-phenyl-1,2,4-triazole-2,2-di(4-hydroxyphenyl)hexafluoropropane copolymer, SRU 146898-60-4P, 3,5-Bis(4-fluorophenyl)-4-phenyl-1,2,4-triazole-bisphenol A copolymer 146898-61-5P, 3,5-Bis(4-fluorophenyl)-4-phenyl-1,2,4-triazole-2,2-di(4-hydroxyphenyl)hexafluoropropane copolymer 148084-15-5P, 2,3-Bis(fluorophenylquinoxaline)-bisphenol A copolymer, SRU 148084-16-6P 148084-17-7P 148084-18-8P 148185-99-3P 148186-44-1P, 2,3-Bis(fluorophenylquinoxaline)-bisphenol A copolymer 148186-45-2P, 2,3-Bis(fluorophenylquinoxaline)-2,2-di(4-hydroxyphenyl)hexafluoropropane copolymer 148186-47-4P 148186-49-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation in DMPU solvent and intrinsic viscosity of)

IT 148357-62-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, effect of DMPU solvent on yield of)

IT 148357-61-3P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(reaction of, with cresol, effect of DMPU solvent on yield of)

IT 108-39-4P, reactions
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(reaction of, with fluoroperfluorooctylbenzene, effect of DMPU solvent on yield of)

IT 7226-23-5
RL: USES (Uses)
(solvents, poly(aryl ether) synthesis in)

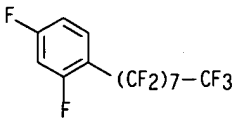
IT **136776-32-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation in DMPU solvent and intrinsic viscosity of)

RN 136776-32-4 HCAPLUS

CN Methanone, bis(4-fluorophenyl)-, polymer with 2,4-difluoro-1-(heptadecafluorooctyl)benzene and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

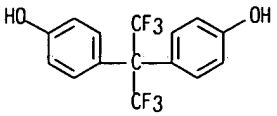
CM 1

CRN 136776-31-3
CMF C14 H3 F19



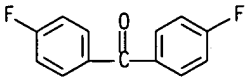
CM 2

CRN 1478-61-1
CMF C15 H10 F6 O2



CM 3

CRN 345-92-6
CMF C13 H8 F2 O



L19 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:193230 HCAPLUS
DN 118:193230
ED Entered STN: 14 May 1993
TI Manufacture of homogeneous hard polymer coatings on complex shape materials
IN Kimura, Toshiyuki; Ota, Katsuhisa
PA Matsushita Electric Works, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08J007-18
ICS C08J007-04; C23C014-12; C23C014-38
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 42
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04296337	A2	19921020	JP 1991-62190	19910326 <--
PRAI JP 1991-62190		19910326 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 04296337	ICM	C08J007-18
	ICS	C08J007-04; C23C014-12; C23C014-38

AB The title process is described by rotation of the materials in a container and plasma polymerization of gaseous monomers in the container to form polymer layer on the materials. Thus, plasma polymerization of hexafluorobenzene in a rotated container containing PET molding in the presence of Ar at 1 .times. 10-1 Torr and 10W for 30 min gave coatings having thickness .apprx.8 .mu.m with good adhesion.
ST plasma polymn hexafluorobenzene PET molding; coating polyhexafluorobenzene PET molding
IT Polymerization
(plasma, of gaseous monomers, on complex shape materials)
IT Coating process
(plasma, of gaseous monomers, on complex shapes materials)
IT 26298-61-3, Poly(hexamethyldisiloxane) 31668-87-8, Polyhexafluorobenzene **81313-09-9**
RL: USES (Uses)
(coating of, on complex shape materials, methods for)
IT 12597-68-1, Stainless steel, uses 25038-59-9, PET polymer, miscellaneous
RL: USES (Uses)

(complex shapes, coating methods for, plasma coating and plasma polymerization as)

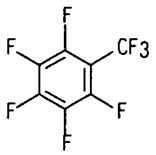
IT 107-46-0, Hexamethyldisiloxane 392-56-3, Hexafluorobenzene 434-64-0, Octafluorotoluene
RL: RCT (Reactant); RACT (Reactant or reagent)
(plasma polymerization of, on complex shape materials, methods for)

IT **81313-09-9**
RL: USES (Uses)
(coating of, on complex shape materials, methods for)

RN 81313-09-9 HCAPLUS
CN Benzene, pentafluoro(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 434-64-0
CMF C7 F8



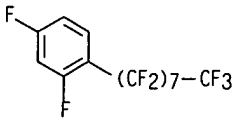
Check

L19 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:681071 HCAPLUS
DN 115:281071
ED Entered STN: 27 Dec 1991
TI Highly fluorinated poly(aryl ethers) and related toughened networks
AU Labadie, J. W.; Hedrick, J. I.; Hilborn, I. G.; Kim, S. Y.
CS Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6099, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (**1991**), 32(2), 170-1
CODEN: ACPPAY; ISSN: 0032-3934
DT Journal
LA English
CC 37-3 (Plastics Manufacture and Processing)
AB The preparation and properties of bisphenol AF-4,4'-difluorobenzophenone-2,4-difluoro-1-(perfluorooctyl)benzene copolymers, bis(4-fluorophenyl) sulfone-bisphenol AF-2,4-difluoro-1-(perfluorooctyl)benzene copolymers and thermoset resin, 1,1,1,3,3,3,-hexafluoro-2,2-bis[[(4-vinylbenzyl)oxy]phenyl]propane homopolymer and related polymers were discussed.
ST polyether polyketone fluoropolymer pendent perfluorooctyl; polysulfone polyether fluoropolymer pendent perfluorooctyl
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(fluorine-containing, preparation and thermal and phys. properties of)
IT Fluoropolymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, preparation and thermal and phys. properties of)
IT Polyketones
Polysulfones, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, fluorine-containing, preparation and thermal and phys. properties of)
IT Fluoropolymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketone-, preparation and thermal and phys. properties of)
IT Fluoropolymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyether-polysulfone-, preparation and thermal and phys. properties of)
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, fluorine-containing, preparation and thermal and phys. properties of)
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polysulfone-, fluorine-containing, preparation and thermal and phys. properties of)
IT 129639-70-9P **136776-32-4P** 137842-65-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal and phys. properties of)
IT **136776-32-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal and phys. properties of)
RN 136776-32-4 HCAPLUS
CN Methanone, bis(4-fluorophenyl)-, polymer with 2,4-difluoro-1-(heptadecafluorooctyl)benzene and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

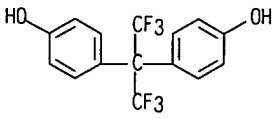
CM 1

CRN 136776-31-3
CMF C14 H3 F19



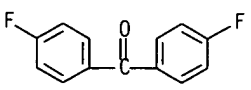
CM 2

CRN 1478-61-1
CMF C15 H10 F6 O2



CM 3

CRN 345-92-6
CMF C13 H8 F2 O

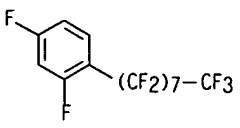


L19 ANSWER 10 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:584059 HCAPLUS
DN 115:184059
ED Entered STN: 01 Nov 1991
TI Pendent perfluoroalkyl poly(aryl ethers)

AU Kim, Sang Youl; Labadie, Jeff W.
CS Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6099, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1991), 32(1), 164-5
CODEN: ACPPAY; ISSN: 0032-3934
DT Journal
LA English
CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 37
AB The title aromatic fluoropolymer-polyether-polyketones were prepared by the polycondensation of 1,3-difluoro-4-(n-perfluorooctyl)benzene (I) with (4-HOC6H4)2C(CF3)2 and 4,4'-difluorobenzophenone in the presence of N-methylpyrrolidone and K2CO3. The polymer glass transition temperature decreased with increasing proportions of I.
ST arom fluoropolymer polyether polyketone; glass temp fluoropolymer polyether polyketone; perfluoroalkyl substituted polyether polyketone
IT Glass temperature and transition
(of perfluoroalkyl-substituted aromatic fluoropolymer-polyether-polyketones, perfluoroalkyl group effect on)
IT Polyketones
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aromatic, fluorine-containing, preparation of, perfluoroalkyl substituent effect on glass-transition temperature in relation to)
IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketone-, aromatic, preparation of, perfluoroalkyl substituent effect on glass-transition temperature in relation to)
IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, aromatic, fluorine-containing, preparation of, perfluoroalkyl substituent effect on glass-transition temperature in relation to)
IT 584-08-7, Potassium carbonate
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for condensation of difluoro(perfluorooctyl)benzene with bis(hydroxyphenyl)hexafluoropropane and difluorobenzophenone)
IT **136776-32-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, effect of perfluoroalkyl substituent on glass-transition temperature in relation to)
IT **136776-32-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, effect of perfluoroalkyl substituent on glass-transition temperature in relation to)
RN 136776-32-4 HCAPLUS
CN Methanone, bis(4-fluorophenyl)-, polymer with 2,4-difluoro-1-(heptadecafluorooctyl)benzene and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

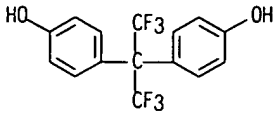
CM 1

CRN 136776-31-3
CMF C14 H3 F19



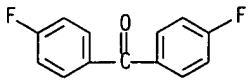
CM 2

CRN 1478-61-1
CMF C15 H10 F6 O2



CM 3

CRN 345-92-6
CMF C13 H8 F2 O



L19 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:537292 HCAPLUS
DN 115:137292
ED Entered STN: 05 Oct 1991
TI Multiphase imide block copolymers: new materials for microelectronics applications
AU Labadie, Jeff W.; Hedrick, James L.
CS Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6099, USA
SO Proceedings - Electronic Components & Technology Conference (1990), 40th(1), 706-10
CODEN: PETCES
DT Journal
LA English
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 36, 38, 42, 76
AB Imide copolymers were prepared via a poly(amic ester) precursor copolymd. with novel perfluoroalkylene-arylene ether (PFAAE) and phenylquinoxaline-aryl ether (PQE) amine-functional oligomers. The copolymers could be processed and cured via conventional techniques to afford high-quality coatings. The block copolymers showed excellent high dimensional stability and tough, ductile mech. properties. The imide-PFAAE copolymers showed a reduction in dielec. constant relative to pyromellitic dianhydride-oxydianiline copolymer (.epsilon. .simeq.2.8) and the imide-PQE copolymers showed excellent self-adhesion as predicted.
ST multiphase imide block copolymer; dielec imide block copolymer; dimensional stability imide block copolymer; polyether polyimide block dielec; polyamic ester copolymer
IT Heat-resistant materials
(multiphase fluoropolymer-imide block copolymers, preparation of)
IT Electric insulators and Dielectrics
(coatings, heat-resistant, multiphase imide block copolymers, preparation of)
IT Coating materials
(heat-resistant, multiphase fluoropolymer-imide block copolymers, preparation of)
IT **136128-97-7P 136128-98-8P 136128-99-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as heat-resistant dielec. coating material)
IT 101-80-4DP, block copolymers 591-27-5DP, condensation products with poly(phenylquinoxalines), block copolymers 47222-52-6DP, block copolymers

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as heat-resistant dielec. coating materials)

IT 129197-57-5P 129197-58-6P 129197-59-7P 129197-60-0P
129219-20-1P 129219-21-2P 129219-22-3P
129219-23-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in manufacture of heat-resistant dielec. coating materials)

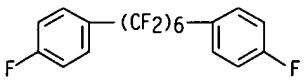
IT **136128-97-7P 136128-98-8P 136128-99-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as heat-resistant dielec. coating material)

RN 136128-97-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 4,6-bis(chlorocarbonyl)-, diethyl ester, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene], 4,4'-oxybis[benzenamine] and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[phenol], block (9CI) (CA INDEX NAME)

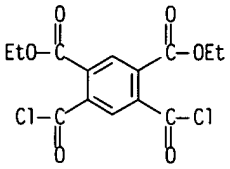
CM 1

CRN 129219-19-8
CMF C18 H8 F14



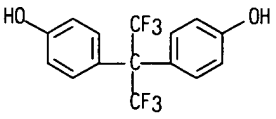
CM 2

CRN 47222-52-6
CMF C14 H12 Cl2 O6



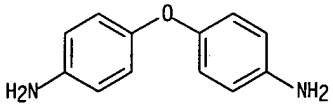
CM 3

CRN 1478-61-1
CMF C15 H10 F6 O2



CM 4

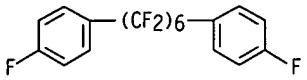
CRN 101-80-4
CMF C12 H12 N2 O



RN 136128-98-8 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 4,6-bis(chlorocarbonyl)-, diethyl ester, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene], 4,4'-(1-methylethylidene)bis[phenol] and 4,4'-oxybis[benzenamine], block (9CI) (CA INDEX NAME)

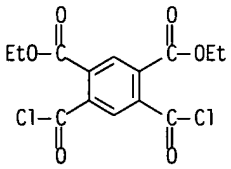
CM 1

CRN 129219-19-8
CMF C18 H8 F14



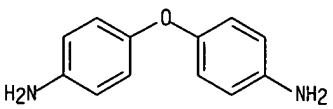
CM 2

CRN 47222-52-6
CMF C14 H12 Cl2 O6



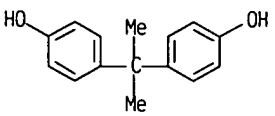
CM 3

CRN 101-80-4
CMF C12 H12 N2 O



CM 4

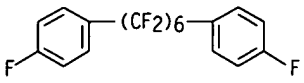
CRN 80-05-7
CMF C15 H16 O2



RN 136128-99-9 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 4,6-bis(chlorocarbonyl)-, diethyl ester, polymer with 1,3-benzenediol, 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] and 4,4'-oxybis[benzenamine], block (9CI) (CA INDEX NAME)

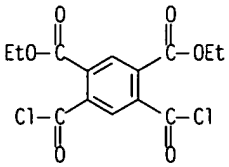
CM 1

CRN 129219-19-8
CMF C18 H8 F14



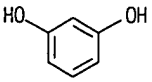
CM 2

CRN 47222-52-6
CMF C14 H12 Cl2 O6



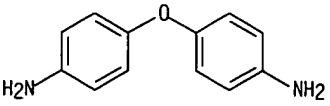
CM 3

CRN 108-46-3
CMF C6 H6 O2



CM 4

CRN 101-80-4
CMF C12 H12 N2 O

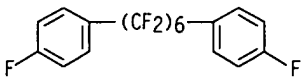


IT **129219-20-1P 129219-21-2P 129219-22-3P**
129219-23-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in manufacture of heat-resistant dielec. coating materials)
RN 129219-20-1 HCAPLUS
CN Phenol, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer

with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

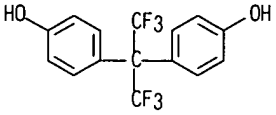
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

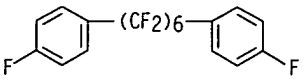
CRN 1478-61-1
CMF C15 H10 F6 O2



RN 129219-21-2 HCAPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

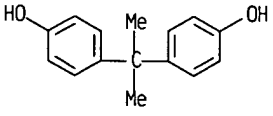
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

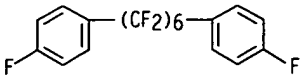
CRN 80-05-7
CMF C15 H16 O2



RN 129219-22-3 HCAPLUS
CN 1,3-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

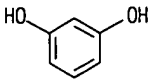
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

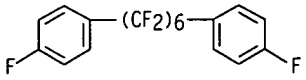
CRN 108-46-3
CMF C6 H6 O2



RN 129219-23-4 HCAPLUS
CN 1,4-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

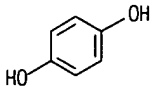
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

CRN 123-31-9
CMF C6 H6 O2



L19 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:229914 HCAPLUS
DN 114:229914
ED Entered STN: 15 Jun 1991
TI New low dielectric constant polyimide block and random copolymers
AU Labadie, Jeff W.; Hedrick, James L.
CS Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6099, USA
SO International SAMPE Electronics Conference (1990), 4(Electron. Mater.--Our Future), 495-506
CODEN: ISECE8; ISSN: 1051-1067
DT Journal
LA English
CC 37-3 (Plastics Manufacture and Processing)
AB Block copolymers based on the polyamic ester of poly(4,4'-oxydiphenylenepyromellitimide) and perfluoroalkylene aryl ethers were synthesized as soluble polyimide precursors. The amine-terminated perfluoroalkylene aryl ether oligomers were synthesized from

1,6-bis(4-fluorophenyl)perfluorohexane and bisphenols via fluoroalkyl activated aryl ether synthesis. Fluoropolymer structure, weight% incorporation, and mol. weight were varied. Films were cast and cured to afford a polyimide block copolymer with dielec. constant .simeq.2.8, and with high dimensional stability and excellent mech. properties. Random copolymers based on the same perfluoroalkylene aryl ether were also synthesized, and the final properties of the block and random polymers are compared.

ST fluoropolymer polyimide polyether block copolymer; dielec const block fluoropolymer polyimide; fluorine contg polyimide block dielec

IT Glass temperature and transition
(of aromatic fluorine-containing polyether-polyimides, with low dielec. constant, structure effect on)

IT Viscoelasticity
(dynamic, of aromatic fluorine-containing polyether-polyimides, with low dielec. constant, structure effect on)

IT Polyimides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aromatic, fluorine-containing, preparation and characterization of low-dielec.-constant)

IT Polyimides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aromatic, fluorine-containing, block, preparation and characterization of low-dielec.-constant)

IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-, aromatic, preparation and characterization of low-dielec.-constant)

IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-, aromatic, block, preparation and characterization of low-dielec.-constant)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyimide-, aromatic, fluorine-containing, preparation and characterization of low-dielec.-constant)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyimide-, aromatic, fluorine-containing, block, preparation and characterization of low-dielec.-constant)

IT 129197-57-5P 129197-58-6P 129197-59-7P 129197-60-0P
129219-20-1P 129219-21-2P 129219-22-3P
129219-23-4P 133162-21-7P 133162-22-8P 133905-70-1P
133905-92-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of low-dielec.-constant)

IT 133905-69-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polycondensation of, with pyromellitic dianhydride and oxydianiline)

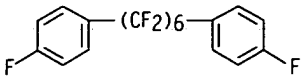
IT **129219-20-1P 129219-21-2P 129219-22-3P**
129219-23-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of low-dielec.-constant)

RN 129219-20-1 HCAPLUS

CN Phenol, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

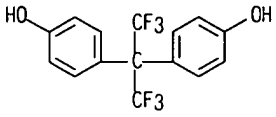
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

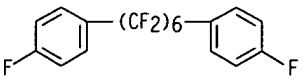
CRN 1478-61-1
CMF C15 H10 F6 O2



RN 129219-21-2 HCAPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

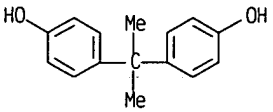
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

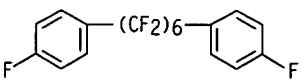
CRN 80-05-7
CMF C15 H16 O2



RN 129219-22-3 HCAPLUS
CN 1,3-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

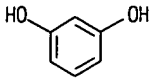
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

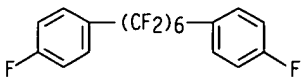
CRN 108-46-3
CMF C6 H6 O2



RN 129219-23-4 HCAPLUS
CN 1,4-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

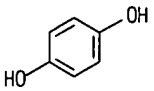
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

CRN 123-31-9
CMF C6 H6 O2



L19 ANSWER 13 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:165458 HCAPLUS
DN 114:165458
ED Entered STN: 03 May 1991
TI New low dielectric constant polyimide block and random copolymers
AU Labadie, Jeff W.; Hedrick, James L.
CS Almaden Res. Cent., IBM Res., San Jose, CA, USA
SO SAMPE Journal (**1990**), 26(4), 19-24
CODEN: SAJUAX; ISSN: 0091-1062
DT Journal
LA English
CC 37-3 (Plastics Manufacture and Processing)
AB Block copolymers of a nonfluorinated polyimide with a highly fluorinated coblock were prepared by adding a solution of the di-Et ester diacyl chloride of pyromellitic dianhydride to a mixture of oxydianiline and oligomers prepared by adding 3-aminophenol as an end-capping agent to poly(perfluoroalkyl aryl ethers) prepared from bisphenols and 1,6-(4-fluorophenyl)perfluorohexane. The poly(amic ester) chemical allowed for the use of THF or toluene as a cosolvent with N-methylpyrrolidone to improve the solubility of the fluorinated coblock; moreover, the resulting block copolymer could be isolated by precipitation and washed with toluene to remove unreacted poly(perfluoroalkyl aryl ether). The cured polyimide block polymers had good thermal stability at 400.degree., excellent mech. properties, and a lower dielec. constant than pyromellitic dianhydride

(I)-4,4'-oxydianiline (II) copolyimides. The diamines, 1,6-bis[4-(3-aminophenoxy)phenyl]perfluorohexane (III) and 1,6-bis[4-(4-aminophenoxy)phenyl]perfluorohexane (IV), synthesized by treating 1,6-bis(4-fluorophenyl)perfluorohexane with either 1,3- or 1,4-aminophenol, displayed good reactivity with I and yielded random copolymers under conventional poly(amic acid) polymerization conditions. Copolymers of III and IV with I and II were also prepared The III copolymers were more stable than the IV copolymers; however, none of the copolymers were as thermally stable as I-II copolyimides.

ST block polyimide polyether fluoropolymer; fluorine contg polyether polyimide

IT Electric insulators and Dielectrics
(fluorine-containing block polyether-polyimides, preparation of)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorine-containing, aminophenol-terminated, preparation and polymerization of, with pyromellitic dianhydride diester diacyl chloride and oxydianiline)

IT Polyethers, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyamic acid-, fluorine-containing, block, esters, preparation of)

IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyamic acid-polyether-, block, esters, preparation of)

IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aminophenol-terminated, preparation and polymerization of, with pyromellitic dianhydride diester diacyl chloride and oxydianiline)

IT Polyimides, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polyether-, fluorine-containing, preparation and properties of)

IT Polyimides, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polyether-, fluorine-containing, block, preparation and properties of, with low dielec. constant)

IT Polyamic acids
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, fluorine-containing, block, esters, preparation of)

IT Fluoropolymers
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polyether-polyimide-, preparation and properties of)

IT Fluoropolymers
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polyether-polyimide-, block, preparation and properties of, with low dielec. constant)

IT Polyethers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polyimide-, fluorine-containing, preparation and properties of)

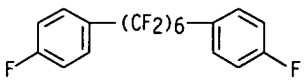
IT Polyethers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polyimide-, fluorine-containing, block, preparation and properties of, with low dielec. constant)

IT **129219-20-1DP**, aminophenol-terminated **129219-21-2DP**, aminophenol-terminated **129219-22-3DP**, aminophenol-terminated **129219-23-4DP**, aminophenol-terminated 133029-93-3P 133029-94-4P 133029-95-5P 133069-20-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(oligomeric, preparation and properties and polymerization of, with poly(amic esters))

IT 133003-70-0P 133003-72-2P
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and polymerization of, with pyromellitic dianhydride)
IT 133003-71-1P 133003-73-3P 133003-74-4P 133003-75-5P 133029-96-6P 133029-97-7P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and properties of)
IT 133162-21-7P 133162-22-8P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and properties of, with low dielec. constant)
IT 129219-19-8, 1,6-Bis(4-fluorophenyl)perfluorohexane
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aminophenols)
IT 123-30-8 591-27-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bis(fluorophenyl)perfluorohexane)
IT **129219-20-1DP**, aminophenol-terminated **129219-21-2DP**, aminophenol-terminated **129219-22-3DP**, aminophenol-terminated **129219-23-4DP**, aminophenol-terminated
RL: SPN (Synthetic preparation); PREP (Preparation)
(oligomeric, preparation and properties and polymerization of, with poly(amic esters))
RN 129219-20-1 HCAPLUS
CN Phenol, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

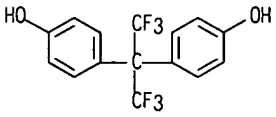
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

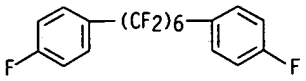
CRN 1478-61-1
CMF C15 H10 F6 O2



RN 129219-21-2 HCAPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

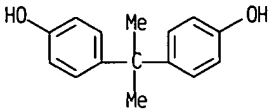
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

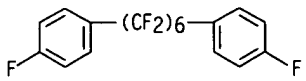
CRN 80-05-7
CMF C15 H16 O2



RN 129219-22-3 HCAPLUS
CN 1,3-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

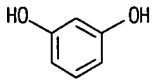
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

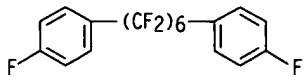
CRN 108-46-3
CMF C6 H6 O2



RN 129219-23-4 HCAPLUS
CN 1,4-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

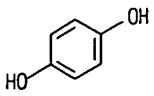
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

CRN 123-31-9
CMF C6 H6 O2

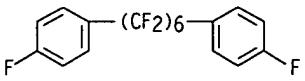


L19 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:632171 HCAPLUS
DN 113:232171
ED Entered STN: 22 Dec 1990
TI Perfluoroalkylene-activated poly(aryl ether) synthesis
AU Labadie, Jeff W.; Hedrick, James L.
CS Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6099, USA
SO Macromolecules (1990), 23(26), 5371-3
CODEN: MAMOBX; ISSN: 0024-9297
DT Journal
LA English
CC 35-5 (Chemistry of Synthetic High Polymers)
AB Since perfluoroalkyl groups were shown to effectively activate nucleophilic aromatic substitution, this reaction was used to prepare poly(perfluoroalkylene aryl ethers). A difunctional aryl fluoride, 1,6-bis(4-fluorophenyl)perfluorohexane (I) was prepared from 1,6-diiodoperfluorohexane and 1-fluoro-4-iodobenzene in 85% yield. I was polymerized with several bisphenols in presence of PhMe as dehydrating agent. The copolymers had high thermal stability, tough ductile mech. properties, and a low dielec. constant
ST polyperfluoroalkylene aryl ether prepn property; heat resistant polyperfluoroalkylene aryl ether; dielec const polyperfluoroalkylene aryl ether
IT Heat-resistant materials
(bis(fluorophenyl)perfluorohexane-bisphenol copolymers)
IT Glass temperature and transition
(of bis(fluorophenyl)perfluorohexane-bisphenol copolymers)
IT Dielectric constant and dispersion
(of fluorine-containing polyethers)
IT Polyethers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorine-containing, heat-resistant, preparation and dielec. constant and mech. properties of)
IT Fluoropolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyether-, heat-resistant, preparation and dielec. constant and mech. properties of)
IT 129197-57-5P 129197-58-6P 129197-60-0P **129219-20-1P**
129219-21-2P **129219-22-3P**, 1,6-Bis(4-fluorophenyl)perfluorohexane-resorcinol copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(heat-resistant, preparation and dielec. constant and mech. properties of)
IT 129219-19-8P, 1,6-Bis(4-fluorophenyl)perfluorohexane
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and polymerization with bisphenols or reaction with tert-butylphenol)
IT 71558-32-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as model for preparation of poly(perfluoroalkylene aryl ethers))
IT 98-54-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bis(fluorophenyl)perfluorohexane, as model for perfluoroalkylene-activated diplacement)
IT 352-34-1, 1-Fluoro-4-iodobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with diiodoperfluorohexane)
IT 3019-89-4, Sodium m-cresolate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with fluorobenzotrifluoride or nitrobenzotrifluoride, as model for reaction with perfluoroalkyl-substituted fluoro- or nitrobenzene)
IT 375-80-4, 1,6-Diiodoperfluorohexane
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with fluoroiodobenzene)
IT 402-44-8, 4-Fluorobenzotrifluoride 402-54-0, 4-Nitrobenzotrifluoride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with sodium cresolate, as model for perfluoroalkyl-substituted nitrobenzene reaction)
IT **129219-20-1P 129219-21-2P 129219-22-3P**,
1,6-Bis(4-fluorophenyl)perfluorohexane-resorcinol copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(heat-resistant, preparation and dielec. constant and mech. properties of)
RN 129219-20-1 HCAPLUS
CN Phenol, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

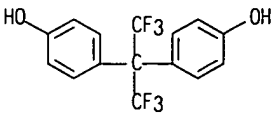
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

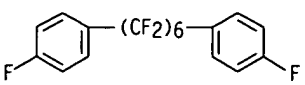
CRN 1478-61-1
CMF C15 H10 F6 O2



RN 129219-21-2 HCAPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

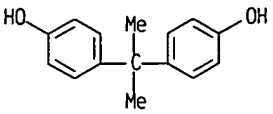
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

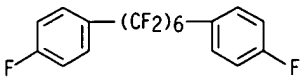
CRN 80-05-7
CMF C15 H16 O2



RN 129219-22-3 HCAPLUS
CN 1,3-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

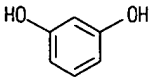
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

CRN 108-46-3
CMF C6 H6 O2

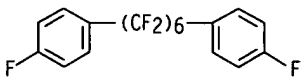


L19 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:515987 HCAPLUS
DN 113:115987
ED Entered STN: 29 Sep 1990
TI Poly(perfluoroalkylene aryl ethers)
AU Labadie, Jeff W.; Hedrick, James L.
CS Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6099, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1990), 31(1), 344-5
CODEN: ACPPAY; ISSN: 0032-3934
DT Journal
LA English
CC 35-5 (Chemistry of Synthetic High Polymers)
AB Copolymers prepared from 1,6-bis(4-fluorophenyl)perfluorohexane (I) and bisphenol A, 2,2-bis(4-hydroxyphenyl)hexafluoropropane, hydroquinone (II), or resorcinol by fluoroalkyl-activated fluoro displacement had high mol. wts. and low glass temps. due to the flexible (CF2)6 linkages in the backbones. I-II copolymer was semicryst. Copolymer decomposition temps. were 480-490.degree.. The reactions of 4-fluorobenzotrifluoride and 4-nitrobenzotrifluoride with m-cresol in presence of aqueous NaOH were models for the copolymn.
ST polyoxyphenylene perfluorohexylene prepn thermal stability; fluorophenylperfluorohexane phenol copolymer thermal stability; crystallinity fluorophenylperfluorohexane hydroquinone copolymer
IT Heat-resistant materials

(bis(fluorophenyl)perfluorohexane copolymers with bisphenols)
IT Glass temperature and transition
(of bis(fluorophenyl)perfluorohexane copolymers with bisphenols)
IT Crystallinity
(of bis(fluorophenyl)perfluorohexane-hydroquinone copolymer)
IT Polyoxyphenylenes
RL: SPN (Synthetic preparation); PREP (Preparation)
(perfluorohexylene group-containing, preparation and thermal stability and glass temperature of)
IT Fluoropolymers
(polyoxyphenylene-, perfluorohexylene group-containing, preparation and thermal stability and glass temperature of)
IT 129219-19-8P, 1,6-Bis(4-fluorophenyl)perfluorohexane
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of, with bisphenols)
IT 129197-57-5P 129197-58-6P 129197-60-0P **129219-20-1P**
129219-21-2P 129219-22-3P, 1,6-Bis(4-fluorophenyl)perfluorohexane-resorcinol copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal stability and glass temperature of)
IT 71558-32-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 129197-59-7P **129219-23-4P**, 1,6-Bis(4-fluorophenyl)perfluorohexane-hydroquinone copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of semicryst., thermal stability in relation to)
IT 402-44-8, 4-Fluorobenzotrifluoride 402-54-0, 4-Nitrobenzotrifluoride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cresol, in presence of sodium hydroxide, as model for polymerization of bis(fluorophenyl)perfluorohexane with bisphenols)
IT 352-34-1, 4-Fluoro-1-iodobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diiodoperfluorohexane)
IT 108-39-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with fluoro- or nitrobenzotrifluoride, in presence of sodium hydroxide, as model for polymerization of bis(fluorophenyl)perfluorohexane with bisphenols)
IT 375-80-4, 1,6-Diiodoperfluorohexane
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with fluoroiodobenzene)
IT **129219-20-1P 129219-21-2P 129219-22-3P**,
1,6-Bis(4-fluorophenyl)perfluorohexane-resorcinol copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal stability and glass temperature of)
RN 129219-20-1 HCAPLUS
CN Phenol, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

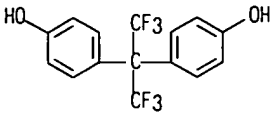
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

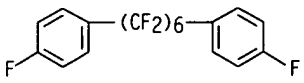
CRN 1478-61-1
CMF C15 H10 F6 O2



RN 129219-21-2 HCAPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

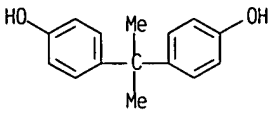
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

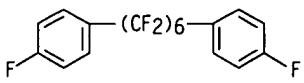
CRN 80-05-7
CMF C15 H16 O2



RN 129219-22-3 HCAPLUS
CN 1,3-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

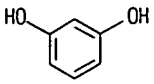
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

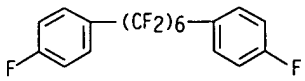
CRN 108-46-3
CMF C6 H6 O2



IT **129219-23-4P**, 1,6-Bis(4-fluorophenyl)perfluorohexane-hydroquinone copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of semicryst., thermal stability in relation to)
RN 129219-23-4 HCAPLUS
CN 1,4-Benzenediol, polymer with 1,1'-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[4-fluorobenzene] (9CI) (CA INDEX NAME)

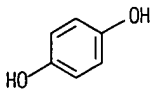
CM 1

CRN 129219-19-8
CMF C18 H8 F14



CM 2

CRN 123-31-9
CMF C6 H6 O2



L19 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:76909 HCAPLUS
DN 108:76909
ED Entered STN: 05 Mar 1988
TI Peroxide-vulcanizable fluoro rubbers made by telomerization with polyhalides
IN Tatsu, Haruyoshi; Okabe, Jun; Naraki, Akihiro; Abe, Masatoshi; Ebina, Yoshiaki
PA Nippon Mectron Co., Ltd., Japan
SO Ger. Offen., 6 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C08F014-18
ICS C08F008-20
ICA C09K003-10; C09D003-78; C09J003-14; C08L027-12; B65D065-38; B29D023-22
ICI C08J003-24, C08K005-14
CC 39-4 (Synthetic Elastomers and Natural Rubber)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3710819	A1	19871008	DE 1987-3710819	19870401 <--
	DE 3710819	C2	19941124		
	JP 62232407	A2	19871012	JP 1986-74484	19860401 <--
	JP 01016844	B4	19890328		
	US 4774302	A	19880927	US 1987-25053	19870312 <--

PRAI JP 1986-74484 A 19860401 <--
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3710819	ICM	C08F014-18
	ICS	C08F008-20
	ICA	C09K003-10; C09D003-78; C09J003-14; C08L027-12; B65D065-38; B29D023-22
	ICI	C08J003-24, C08K005-14
DE 3710819	ECLA	C08F014/18+2/16 <--

AB Title rubbers, with good processability and flow and giving vulcanizates with good mech. properties, are prepared by polymerizing fluoroolefins in the presence of aromatic polyfluorides, polybromides, or polyiodides. Emulsion telomerization of CH2:CF2 69, C2F4 20, and CF2:CFOCF3 11 mol in the presence of 1 g (NH4)2S2O8 and 8.3 g 1,4-C6F4(CF2CF2I)2 (I) at 80.degree. for 24 h gave a rubber with I2 content 0.32% and intrinsic viscosity (MEK, 35.degree.) 0.92, giving peroxide vulcanizates with JIS A hardness 66, 100% modulus 29 kg/cm2, tensile strength 141 kg/cm2, elongation 240%, and compression set 32%; vs. 0.39, 0.31 (Br), 66, -, 43, 90, and >100 [sic], resp., with C2BrF3 in place of I.

ST fluoro rubber peroxide vulcanization; telomer fluoroolefin rubber; vinylidene fluoride copolymer rubber; tetrafluoroethylene copolymer rubber; iodoethylbenzene perfluoro telomer; vinyl ether perfluoro rubber

IT Aryl halides
RL: USES (Uses)
(chain-tranfer agents, for peroxide-vulcanizable fluoro rubber manufacture)

IT Telomers
RL: USES (Uses)
(of fluoroolefins with aromatic polyhalides, rubber, manufacture of peroxide-vulcanizable)

IT Rubber, synthetic
RL: USES (Uses)
(fluoro, peroxide-vulcanizable, bromine- and iodine-containing fluoroolefin telomer manufacture for)

IT **112707-55-8P 112707-56-9P** 112727-50-1P
RL: PREP (Preparation)
(rubber, peroxide-vulcanizable, manufacture of)

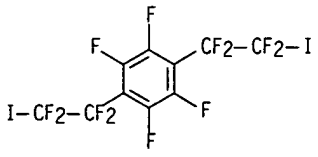
IT **112707-55-8P 112707-56-9P**
RL: PREP (Preparation)
(rubber, peroxide-vulcanizable, manufacture of)

RN 112707-55-8 HCAPLUS

CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(1,1,2,2-tetrafluoro-2-iodoethyl)-, telomer with 1,1-difluoroethene, tetrafluoroethene and trifluoro(trifluoromethoxy)ethene (9CI) (CA INDEX NAME)

CM 1

CRN 112707-54-7
CMF C10 F12 I2



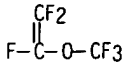
CM 2

CRN 56357-87-0
CMF (C3 F6 O . C2 H2 F2 . C2 F4)x

CCI PMS

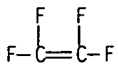
CM 3

CRN 1187-93-5
CMF C3 F6 O



CM 4

CRN 116-14-3
CMF C2 F4



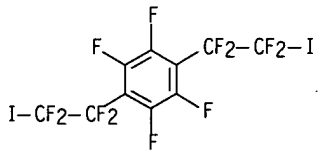
CM 5

CRN 75-38-7
CMF C2 H2 F2

RN 112707-56-9 HCAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(1,1,2,2-tetrafluoro-2-iodoethyl)-, telomer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 112707-54-7
CMF C10 F12 I2

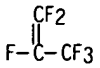


CM 2

CRN 25190-89-0
CMF (C3 F6 . C2 H2 F2 . C2 F4)x
CCI PMS

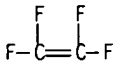
CM 3

CRN 116-15-4
CMF C3 F6



CM 4

CRN 116-14-3
CMF C2 F4



CM 5

CRN 75-38-7
CMF C2 H2 F2

L19 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:76908 HCAPLUS
DN 108:76908
ED Entered STN: 05 Mar 1988
TI Peroxide-vulcanizable fluororubbers
IN Tatsu, Haruyoshi; Okabe, Jun; Naraki, Akihiro; Abe, Masatoshi; Ebina, Yoshiaki
PA Nippon Mecktron Co., Ltd., Japan
SO Ger. Offen., 11 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C08F014-18
ICS C08F008-20
ICA C09K003-10; C09D003-78; C09J003-14; C08L027-12; B65D065-38; B29D023-22
ICI C08J003-24, C08K005-14
CC 39-4 (Synthetic Elastomers and Natural Rubber)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3710818	A1	19871008	DE 1987-3710818	19870401 <--
	DE 3710818	C2	19931021		
	US 4748223	A	19880531	US 1987-25191	19870312 <--
	JP 63308008	A2	19881215	JP 1987-58145	19870313 <--
	JP 01057125	B4	19891204		
PRAI	JP 1986-74483	A	19860401	<--	
	JP 1987-21591	A	19870130	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3710818	ICM	C08F014-18
	ICS	C08F008-20
	ICA	C09K003-10; C09D003-78; C09J003-14; C08L027-12; B65D065-38; B29D023-22
	ICI	C08J003-24, C08K005-14

AB The title rubbers, with good processability, flow, and phys. properties, are prepared by polymerizing fluoroolefins in the presence of the halides RBrnIm (R = hydrocarbyl, optionally bearing Cl and/or F atoms; n, m = 1 or 2). Emulsion polymerization of CH2:CF2, C3F6, and C2F4 in mol ratio 42:38:20 in the presence of 2.0 g BrCF2CF2I at 80.degree. for 3 h gave 508 g polymer with intrinsic viscosity (MEK, 35.degree.) 0.68 and Br + I content 0.25%, giving vulcanizates with JIS A hardness 72, 100% modulus 30 bar, tensile strength 260 bar, elongation 480%, and compression set 31%.

ST fluoro rubber peroxide vulcanizable; telomer fluoroolefin rubber; bromoiodotetrafluoroethane telomer rubber; hexafluoropropylene copolymer rubber; tetrafluoroethylene copolymer rubber; vinylidene fluoride copolymer rubber

IT Telomers
RL: USES (Uses)
(of fluoroolefins, for peroxide-vulcanizable rubbers)

IT Rubber, synthetic
RL: USES (Uses)
(fluoro, peroxide-vulcanizable, haloalkane telomers as)

IT **112707-55-8P** 112782-62-4P 112782-63-5P 112782-66-8P
112782-67-9P 112782-68-0P 112782-70-4P 112782-71-5P 112803-05-1P
RL: PREP (Preparation)
(rubber, peroxide-vulcanizable, manufacture of)

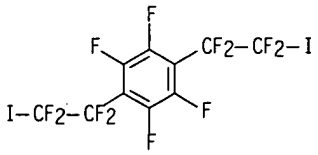
IT **112707-55-8P**
RL: PREP (Preparation)
(rubber, peroxide-vulcanizable, manufacture of)

RN 112707-55-8 HCAPLUS

CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(1,1,2,2-tetrafluoro-2-iodoethyl)-, telomer with 1,1-difluoroethene, tetrafluoroethene and trifluoro(trifluoromethoxy)ethene (9CI) (CA INDEX NAME)

CM 1

CRN 112707-54-7
CMF C10 F12 I2

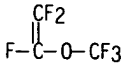


CM 2

CRN 56357-87-0
CMF (C3 F6 O . C2 H2 F2 . C2 F4)x
CCI PMS

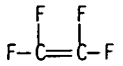
CM 3

CRN 1187-93-5
CMF C3 F6 O



CM 4

CRN 116-14-3
CMF C2 F4



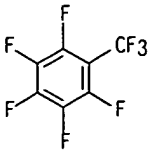
CM 5

CRN 75-38-7
CMF C2 H2 F2

L19 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1984:531399 HCAPLUS
DN 101:131399
ED Entered STN: 13 Oct 1984
TI Characterization of plasma-polymerized materials by modern spectroscopic techniques
AU Kaplan, S.; Dilks, A.
CS Xerox Corp., New York, NY, 14580, USA
SO Journal of Applied Polymer Science: Applied Polymer Symposium (**1984**), 38(Plasma Polym. Plasma Treat.), 105-25
CODEN: JPSSDD; ISSN: 0271-9460
DT Journal
LA English
CC 36-2 (Physical Properties of Synthetic High Polymers)
AB The structure of plasma-polymerized polyethane [36427-13-1], polyethylene [9002-88-4], and polyacetylene [25067-58-7] films were determined by 13C NMR, and the structure of polytoluene [25013-04-1] was determined by NMR, pyrolysis-gas chromatog., and mass spectrometry. PTFE [9002-84-0] and poly(octafluorotoluene) [**81313-09-9**] structures were determined by NMR and ESCA.
ST plasma polymn polymer structure; ethane polymer structure; polyethylene structure spectrometry; polyacetylene structure spectrometry; toluene polymer structure; PTFE structure spectrometry; octafluorotoluene polymer structure
IT Plasma, chemical and physical effects
(polymerization by, structure determination in, spectroscopic)
IT Polymerization
(plasma, structure determination in, spectrometric)
IT 9002-84-0 9002-88-4 25013-04-1 25067-58-7 36427-13-1 **81313-09-9**
RL: PRP (Properties)
(structure of plasma-polymerized, spectroscopic determination of)
IT **81313-09-9**
RL: PRP (Properties)
(structure of plasma-polymerized, spectroscopic determination of)
RN 81313-09-9 HCAPLUS
CN Benzene, pentafluoro(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

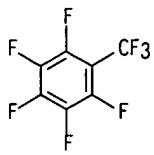
CRN 434-64-0
CMF C7 F8



L19 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1984:121906 HCAPLUS
DN 100:121906
ED Entered STN: 12 May 1984
TI Characterization of plasma-polymerized materials by modern spectroscopic techniques
AU Dilks, Alan; Kaplan, Samuel
CS Xerox Corp., Rochester, NY, 14644, USA
SO Organic Coatings and Applied Polymer Science Proceedings (1982), 47, 212-16
CODEN: OCAPDE; ISSN: 0732-7528
DT Journal
LA English
CC 36-4 (Physical Properties of Synthetic High Polymers)
AB ESCA, 13C NMR, and pyrolysis gas chromatog.-mass spectroscopy were used to characterize plasma-deposited films (e.g., of octafluorotoluene, toluene, and ethylene), and the results are presented and discussed.
ST plasma polymd fluorotoluene structure; ethylene plasma polymn structure; toluene plasma polymn structure
IT Nuclear magnetic resonance
(of carbon-13, in plasma-deposited films)
IT Mass spectroscopy
(pyrolysis gas chromatog. and, of plasma-deposited films)
IT Chromatography, gas
(pyrolysis, mass spectroscopy and, of plasma-deposited films)
IT Photoelectron spectroscopy
(x-ray, of plasma-deposited films)
IT 9002-88-4 25013-04-1 **81313-09-9**
RL: PRP (Properties)
(plasma-prepared, film, characterization of)
IT **81313-09-9**
RL: PRP (Properties)
(plasma-prepared, film, characterization of)
RN 81313-09-9 HCAPLUS
CN Benzene, pentafluoro(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 434-64-0
CMF C7 F8

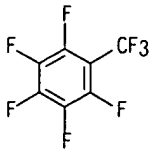


L19 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1983:216108 HCAPLUS
DN 98:216108
ED Entered STN: 12 May 1984

TI Glow discharge polymerizations of tetrafluoroethylene, perfluoromethylcyclohexane and perfluorotoluene investigated by infrared spectroscopy and ESCA
AU Inagaki, N.; Nakanishi, T.; Katsuura, K.
CS Fac. Eng., Shizuoka Univ., Hamamatsu, 432, Japan
SO Polymer Bulletin (Berlin, Germany) (1983), 9(10-11), 502-6
CODEN: POBUDR; ISSN: 0170-0839
DT Journal
LA English
CC 35-4 (Chemistry of Synthetic High Polymers)
AB Glow-discharge polymns. of tetrafluoroethylene, perfluoro(methylcyclohexane), and perfluorotoluene were investigated by IR spectroscopy and ESCA to clarify the contribution of olefinic double bonds and cyclic structures. The products formed from the 3 compds. were deposited as filmy polymers containing large amts. of fluorine. Their polymeric chains are composed of CF, CF-CFn, CF2, and CF3 groups and have relatively little dependence on chemical structures of the starting compds. The polymer-forming process involves not only chain reactions via addition reaction to double bonds and via ring-opening reactions but also the rupture of C-F bonds and the rearrangement of the ruptured fluorine atoms.
ST glow discharge polymn perfluorocarbon; tetrafluoroethylene polymn glow discharge; perfluoromethylcyclohexane polymn glow discharge; perfluorotoluene polymn glow discharge
IT Plasma, chemical and physical effects
(perfluorocarbon polymerization by, ESCA and IR spectroscopy study of)
IT Perfluorocarbons
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, by glow discharge, ESCA and IR spectroscopy study of)
IT Polymerization
(plasma, of perfluorocarbons, ESCA and IR spectroscopy study of)
IT 9002-84-0P **81313-09-9P** 85947-41-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by glow discharge, ESCA and IR spectroscopy of)
IT **81313-09-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by glow discharge, ESCA and IR spectroscopy of)
RN 81313-09-9 HCAPLUS
CN Benzene, pentafluoro(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 434-64-0
CMF C7 F8

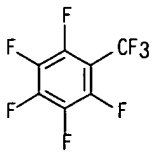


L19 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1982:143378 HCAPLUS
DN 96:143378
ED Entered STN: 12 May 1984
TI Polymerization of some polyfluoro aromatic compounds in a glow discharge
AU Gil'man, A. B.; Shifrina, R. R.; Dvornikova, K. V.; Kolotyrkin, V. M.; Platonov, V. E.; Potapov, V. K.; Yakobson, G. G.
CS Fiz.-Khim. Inst. im. Karpova, Moscow, USSR
SO Vysokomolekulyarnye Soedineniya, Seriya A (1982), 24(1), 155-60
CODEN: VYSAAF; ISSN: 0507-5475

DT Journal
LA Russian
CC 35-3 (Chemistry of Synthetic High Polymers)
AB The polymerization rate in glow-discharge polymerization of F-containing aromatic compds. increased in the order: C6F6 [392-56-3] < pentafluoro(trichloromethyl)ben zene [778-34-7] < octafluorotoluene [434-64-0] < perfluoro-.alpha.-chlorostyrene [58161-50-5] < perfluorostyrene [652-23-3]. The [F]/[C] ratio in the polymers was lower than that of the monomers. The thermal stability and hydrophobicity of the polymers decreased with decreasing [F]/[C] ratio and on introducing Cl substituents. Based on IR spectra, a general polymerization mechanism was proposed involving aromatic ring opening, formation of aliphatic C-F bonds, and condensation of aromatic rings.
ST glow discharge polymn arom fluorocarbon; mechanism glow discharge polymn fluorocarbon; fluorochloromethylbenzene glow discharge polymn; chloromethylfluorobenzene glow discharge polymn; toluene perfluoro glow discharge polymn; styrene perfluoro glow discharge; chlorostyrene perfluoro glow discharge; benzene perfluoro glow discharge polymn; hydrophobicity heat resistance fluoropolymer
IT Fluoropolymers
RL: USES (Uses)
(from aromatic fluorocarbons, hydrophobicity and thermal stability of)
IT Hydrophobicity
(of fluoropolymers from aromatic fluorocarbons)
IT Polymerization
(elec.-discharge, of aromatic fluorocarbons, mechanism of)
IT Electric discharge, chemical and physical effects
(glow, polymerization by, of aromatic fluorocarbons, mechanism of)
IT 392-56-3 434-64-0 652-23-3 778-34-7 58161-50-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, glow-discharge, mechanism of)
IT 26838-49-3P 31668-87-8P 61390-48-5P **81313-09-9P**
81313-10-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and hydrophobicity and thermal stability of)
IT **81313-09-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and hydrophobicity and thermal stability of)
RN 81313-09-9 HCAPLUS
CN Benzene, pentafluoro(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 434-64-0
CMF C7 F8



L19 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1973:467065 HCAPLUS
DN 79:67065
ED Entered STN: 12 May 1984
TI Poly(2,2,3,3,5,6-hexafluoro-p-xylylene)
IN Norris, William P.
PA United States Dept. of the Navy
SO U.S., 2 pp. Division of U.S. 3,636,032 (CA 76:99403n).
CODEN: USXXAM

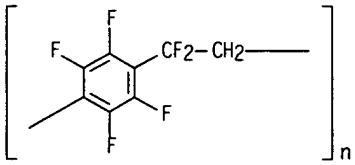
DT Patent
LA English
IC C07C
NCL 260465000D
CC 35-3 (Synthetic High Polymers)
Section cross-reference(s): 25
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3732278		19730508	US 1968-723908	19680424 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 3732278	IC	C07C
	NCL	260465000D

AB A heat-resistant poly-.alpha...alpha..2,3,5,6-hexafluoro-p-xylylene (I) [**34521-30-7**] film was prepared by heating potassium 4-trifluoromethyl-2,3,5,6-tetrafluorophenyl acetate (II) [32251-54-0] at 250.deg. to form gaseous 2,3,5,6,7,7-hexafluoro-p-quinodimethane [37510-06-8] which polymerized to form I film on a cold surface. Thus, 22.6 g ethyl cyanoacetate [105-56-6] was treated with 5.0 g sodium hydride [7646-69-7] and 23.6 g octafluorotoluene [434-64-0] to give 28 g ethyl (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)cyanoacetate (III) [32251-53-9]. II was hydrolyzed 5 hr with 80 ml H_2SO_4 to give 4-trifluoromethyl-2,3,5,6-tetrafluorophenylacetic acid [32304-29-3], which was treated with KOH to give II. II was heated at 250.deg. to give I, which was a clear, flexible, crystalline film and had a weight loss 17% when heated 20 min at 500.deg..
ST polyfluoroxylene film heat resistance; potassium fluoromethylphenylacetate polyfluoroxylene; fluorophenylcyanoacetate
IT Heat-resistant materials
(poly(hexafluoroxylylene))
IT **32218-15-8P** 32251-53-9P 32304-29-3P 34389-29-2P
RL: PREP (Preparation)
(preparation of)
IT 32251-54-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(pyrolysis of, to hexafluoroquinodimethane)
IT 434-64-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethyl cyanoacetate)
IT 105-56-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with octafluorotoluene)
IT **32218-15-8P**
RL: PREP (Preparation)
(preparation of)
RN 32218-15-8 HCAPLUS
CN Poly[(2,3,5,6-tetrafluoro-1,4-phenylene)(1,1-difluoro-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



L19 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1973:44235 HCAPLUS
DN 78:44235

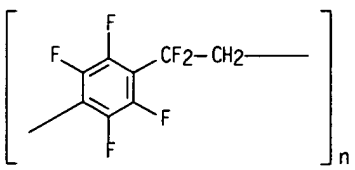
ED Entered STN: 12 May 1984
TI Poly(.alpha...alpha.2,3,5,6-Hexafluoro-p-xylylene)
IN Norris, William P.
PA United States Dept. of the Navy
SO U.S., 3 pp. Division of U.S. 3,626,032 (CA 76:100379t).
CODEN: USXXAM
DT Patent
LA English
IC C07C
NCL 260515000A
CC 35-3 (Synthetic High Polymers)
Section cross-reference(s): 25
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3694495	A	19720926	US 1970-94539	19701202 <--
PRAI	US 1970-94539	A	19701202 <--		

CLASS

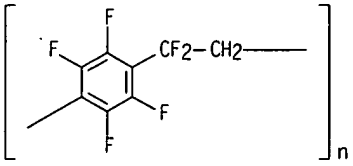
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 3694495	IC	C07C
	NCL	260515000A

AB Thermally stable, inert poly(.alpha...alpha.,2,3,5,6-hexafluoro-p-xylylene) (I) [**34521-30-7**] was prepared by polymerization of 2,3,5,6,7,7-hexafluoro-p-quinodimethan [37510-06-8] which was obtained in situ by heating potassium 4-trifluoromethyl-2,3,5,6-tetrafluorophenylacetate (II) [32251-54-0] at 250.deg./0.01 mm; a 0.4 mm thick I film was clear and pliable and showed 17% weight after 20 min at 500.deg.. Thus, 23.6 g C6F5CF3 was treated with 22.6 g EtO2CCH2CN and 5 g NaH in 75 ml DMF at 25 +- 0.5.deg. and the mixture worked up to give 28 g p-CF3C6F4CH(CN)CO2Et, which was refluxed 5 hr with HOAc 50, H2SO4 80, and H2O 50 ml to give 18 g p-CF3C6F4CH2CO2H (III). Treatment of III with 50% KOH gave II.
ST fluoroquinodimethan prepn polymn; heat resistance polyfluoroxylylene; film polyhexafluoroxylylene
IT Heat-resistant materials
(fluoroxylylene polymers, manufacture of)
IT Polymerization
(of hexafluoroquinodimethane)
IT **32218-15-8**
RL: USES (Uses)
(DTA and crystallinity of)
IT 32251-53-9P 32251-54-0P 32304-29-3P 34389-29-2P
RL: PREP (Preparation)
(preparation of)
IT **32218-15-8**
RL: USES (Uses)
(DTA and crystallinity of)
RN 32218-15-8 HCAPLUS
CN Poly[(2,3,5,6-tetrafluoro-1,4-phenylene)(1,1-difluoro-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



L19 ANSWER 24 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1972:500959 HCAPLUS

DN 77:100959
ED Entered STN: 12 May 1984
TI Poly(.alpha...alpha..2,3,5,6-hexafluoro-p-xylylene)
AU Norris, William P.
CS Res. Dep., Nav. Weapons Cent., China Lake, CA, USA
SO Journal of Organic Chemistry (1972), 37(1), 147-8
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
CC 25-3 (Noncondensed Aromatic Compounds)
Section cross-reference(s): 35
GI For diagram(s), see printed CA Issue.
AB Octafluorotoluene reacts with sodio ethyl cyanoacetate in DMF to give Et (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)cyanoacetate which may be hydrolyzed and decarboxylated to (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)acetic acid. Pyrolysis of K (4-trifluoromethyl-2,3,5,6-tetrafluorophenyl)acetate at 250.degree./0.01 mm causes 1,6-elimination of CO2 and fluoride to give .alpha...alpha..2,3,5,6-hexafluoro-.rho.-xylylene which polymerizes upon condensation to poly-.alpha...alpha..2,3,5,6-hexafluoro-.rho.-xylylene (I).
ST fluoro xylylene polymer; hexafluoroxylylene polymer
IT 778-35-8P **32218-15-8P** 32251-53-9P 32251-54-0P 32251-56-2P 32304-29-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 434-64-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethyl cyanoacetate in presence of sodium hydride)
IT 105-56-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with octafluorotoluene in presence of sodium hydride)
IT **32218-15-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32218-15-8 HCAPLUS
CN Poly[(2,3,5,6-tetrafluoro-1,4-phenylene)(1,1-difluoro-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



L19 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1972:420310 HCAPLUS
DN 77:20310
ED Entered STN: 12 May 1984
TI Perfluoro-p-cresol, poly(oxyperfluorobenzylene), and related monomers and polymers
IN Wall, Leo A.; Antonucci, Joseph M.
PA United States Dept. of the Navy
SO U.S., 2 pp. Division of U.S. 3,394,190 (CA 69:58939d).
CODEN: USXXAM
DT Patent
LA English
IC C07C
NCL 260623000R
CC 35-2 (Synthetic High Polymers)
Section cross-reference(s): 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3629340	A	19711221	US 1968-767863	19680625 <--
PRAI	US 1968-767863	A	19680625 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 3629340	IC	C07C
	NCL	260623000R

AB 2,3,5,6-Tetrafluoro-4-(trifluoromethyl)phenol (I) [2787-79-3] was prepared in 70-5% yield by treating octafluorotoluene with tert-BuOLi and pyrolyzing the tert-Bu ether derivative at 200-50.deg.. Polymerization of I by refluxing with 5% aqueous NaHCO3 or 1% aqueous KF gave poly(2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenol) [**29258-66-0**], m. 70-80.deg..

ST perfluoro cresol prepn polymn; cresol perfluoro prepn polymn; fluoro cresol prepn polymn; polyperfluorocresol

IT Polymerization
(of perfluorocresol)

IT 2787-79-3P **29258-66-0P 35603-47-5P**
RL: PREP (Preparation)
(preparation of)

IT **29258-66-0P 35603-47-5P**
RL: PREP (Preparation)
(preparation of)

RN 29258-66-0 HCAPLUS

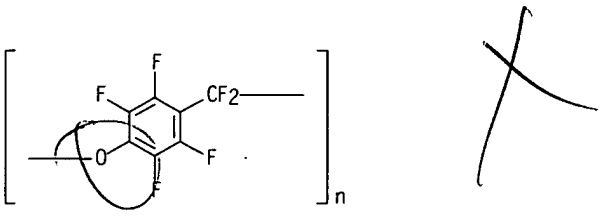
CN Phenol, 2,3,5,6-tetrafluoro-4-(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2787-79-3
CMF C7 H F7 O

RN 35603-47-5 HCAPLUS

CN Poly[oxy(2,3,5,6-tetrafluoro-1,4-phenylene)(difluoromethylene)] (9CI) (CA INDEX NAME)



L19 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1972:155224 HCAPLUS

DN 76:155224

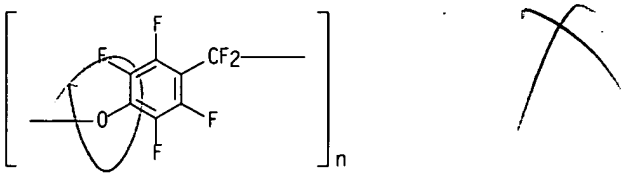
ED Entered STN: 12 May 1984

TI Thermal degradation of hydrofluoro polymers

AU Knight, G. J.; Wright, W. W.

CS Mater. Dep., R. Aircr. Establ., Farnborough/Hants., UK

SO Journal of Applied Polymer Science (1972), 16(3), 683-93
CODEN: JAPNAB; ISSN: 0021-8995
DT Journal
LA English
CC 38 (Elastomers, Including Natural Rubber)
AB The thermal degradation of F-containing polyolefins and polyethers, determined by monitoring F evolution with an F-sensitive electrode, was very sensitive to structure. Copolymers cong. trifluoroethylene [359-11-5] were more stable than those containing vinyl fluoride [75-02-5] or vinylidene fluoride [75-38-7]. The thermal stability of Viton was reduced by crosslinking. Polymers containing perfluoroaromatic rings eliminated F unexpectedly readily. For some polymers, the initial temperature of F-elimination was appreciably lower than that at which weight loss was detected.
ST heat resistance fluoropolymer; degradation thermal fluoropolymer; polyolefin fluorinated degradation; polyether fluorinated degradation; crosslinking Viton stability
IT Rubber, synthetic
(fluorinated, thermal degradation of, structure in relation to)
IT Polymers, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorinated, thermal degradation of, structure in relation to)
IT Dehydrofluorination
(of fluorinated polymers, structure in relation to)
IT Thermal decomposition
(structure in relation to, of fluorinated polymers)
IT **35603-47-5P** 35604-21-8P 35604-23-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 9011-17-0 9052-72-6 9058-33-7 26838-55-1 35502-94-4 35502-96-6 35502-97-7 35604-17-2 35604-18-3 35604-19-4 35604-20-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(thermal degradation of)
IT **35603-47-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 35603-47-5 HCAPLUS
CN Poly[oxy(2,3,5,6-tetrafluoro-1,4-phenylene)(difluoromethylene)] (9CI) (CA INDEX NAME)



L19 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1972:154346 HCAPLUS
DN 76:154346
ED Entered STN: 12 May 1984
TI Thermal degradation of perfluoro polymers
AU Knight, G. J.; Wright, W. W.
CS Mater. Dep., R. Aircr. Establ., Farnborough/Hants., UK
SO Journal of Applied Polymer Science (1972), 16(3), 739-48
CODEN: JAPNAB; ISSN: 0021-8995
DT Journal
LA English
CC 35 (Synthetic High Polymers)
AB Decomposition products which give fluoride ions when dissolved in H2O were formed in .sim.17 and .sim.60% average yield in N and air resp. during the thermal defluorination of perfluorovinyl polymers.

perfluoropolyphenylenes, perfluoropolyphenylene sulfides and perfluoro oxymethylene-linked polymers. Temps. >500.deg. were necessary for the formation of appreciable quantities of fluoride ions.

ST thermal degrdn perfluoro polymer; pyrolysis perfluoro polymer; vinyl perfluoro polymer pyrolysis; polyphenylene perfluoro polymer pyrolysis; sulfide polyphenylene perfluoro pyrolysis; defluorination perfluoro polymer

IT Polysulfides
RL: USES (Uses)
(fluorinated polyphenylene, thermal defluorination of)

IT Polyphenyls
Vinyl compounds, polymers
RL: USES (Uses)
(fluorinated, thermal defluorination of)

IT Thermal decomposition
(of perfluoro polymers)

IT Defluorination
(of perfluoro polymers, by heat)

IT 9002-84-0 9042-24-4 9042-36-8 25067-11-2 27516-63-8 27516-64-9 34991-57-6 **34991-58-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(thermal defluorination of)

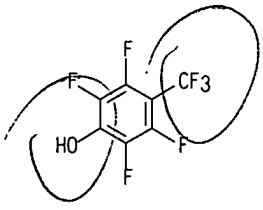
IT **34991-58-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(thermal defluorination of)

RN 34991-58-7 HCAPLUS

CN Phenol, 2,3,5,6-tetrafluoro-4-(trifluoromethyl)-, potassium salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 17011-28-8
CMF C7 H F7 O . K



●K

L19 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1968:458939 HCAPLUS
DN 69:58939
ED Entered STN: 12 May 1984
TI Perfluoro-p-cresol and perfluoro-p-thiocresol
IN Wall, Leo A.; Antonucci, Joseph M.
PA United States Dept. of the Navy
SO U.S., 2 pp.
CODEN: USXXAM
DT Patent
LA English
NCL 260609000
CC 25 (Noncondensed Aromatic Compounds)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3394190	A	19680723	US 1964-422089	19641229 <--

PRAI US 1964-422089 A 19641229 <--
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 3394190	NCL	260609000

AB Heptafluoro-p-cresol (I), useful for the preparation of polymers of high thermal stability, tensile strength, and resistance to strong chems. and having thermoplastic and elastomeric character, is prepared by treating octafluorotoluene (II) with tert-BuOLi (III) in ether to give p-CF3C6F4OBu-tert, which can be pyrolyzed at 150-850.degree. to yield I. Thus, equivalent amts. of II and III were refluxed in ether. The tert-Bu ether formed was isolated and pyrolyzed at 200-50.degree. yielding 70-5% I, b. 142.degree.. About 1 g. I was polymerized by refluxing 17 hrs. in 15 ml. 5% aqueous NaHCO3. The white crystalline polymer m. 70-5.degree.. Also claimed was p-CF3C6F4SH.

ST fluorinated cresols; cresols fluorinated; thiocresols perfluoro

IT **29258-66-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and heat stability of)

IT 651-84-3P 2787-79-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

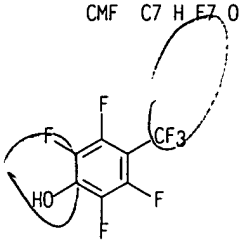
IT **29258-66-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and heat stability of)

RN 29258-66-0 HCAPLUS

CN Phenol, 2,3,5,6-tetrafluoro-4-(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2787-79-3
CMF C7 H F7 O



L19 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1968:114245 HCAPLUS
DN 68:114245
ED Entered STN: 12 May 1984
TI Perfluorophenols and polymers
IN McLoughlin, Victor C. R.; Thrower, John
PA Minister of Technology
SO Brit., 4 pp.
CODEN: BRXXAA
DT Patent
LA English
IC C07C
CC 25 (Noncondensed Aromatic Compounds)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1110232		19680414	GB	19640221 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

GB 1110232 IC C07C

AB Alkali and alkaline earth metal salts of perfluoro(alkylphenols) are prepared, and on heating are converted to linear polymers with benzene nuclei joined through the para-positions by difluoromethyleneoxy bridges or perfluoroalkyl-substituted monofluoromethyleneoxy bridges. Thus, 52 g. octafluorotoluene and 24.6 g. powdered KOH in 150 ml. tert-BuOH was stirred and refluxed 1 hr., 5 g. KOH was added, and the mixture was refluxed another 45 min., cooled, and poured into 1500 ml. 20% H_2SO_4. The lower layer was treated with more acid, dissolved in 100 ml. 15% KOH at 10.degree., extracted with ether, and the ether exts. were dried over K_2CO_3 and concentrated to crystallization Petroleum ether (200 ml.) was added, and the precipitate was filtered off and washed with more petroleum ether to give 42.5 g. heptafluoro-p-cresol K salt, which was then recrystd. from Et_2O and petroleum ether. Then, 25 g. of the salt was heated to 70.degree. in 350 ml. water for 7 hrs., the polymer (10 g.) was filtered off and washed with water, dissolved in CH_2Cl_2, and repptd. with petroleum ether to give a solid, m. .apprx.100.degree., which was hard, semitransparent, and slightly yellow on drying. The polymer was heated to 240.degree. for 1.5 hrs. in vacuo, at which the polymer darkened to dark amber. On addition of K_2CO_3, gas was evolved to give a material elastomeric >120.degree.. Similarly prepared were polymers and monomers using K salts of nonafluoro-p-ethylphenol, nonafluoro-3,4-dimethylphenol, and nonafluoro-2,4-dimethylphenol.

ST PERFLUOROPHENOLS POLYMERS; POLYPERFLUOROPHENOLS

IT Polymers, preparation
RL: PREP (Preparation)
(manufacture of, from perfluorophenols)

IT 17011-28-8P 17011-29-9P 17011-30-2P 17011-31-3P **29258-66-0P** **30231-02-8P** **30231-03-9P** **30231-04-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of)

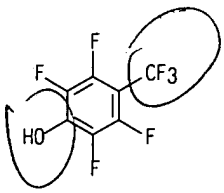
IT **29258-66-0P** **30231-02-8P** **30231-03-9P** **30231-04-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of)

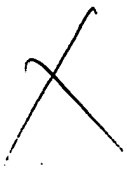
RN 29258-66-0 HCAPLUS

CN Phenol, 2,3,5,6-tetrafluoro-4-(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2787-79-3
CMF C7 H F7 O



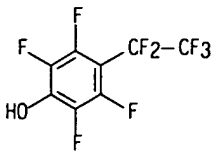


RN 30231-02-8 HCAPLUS

CN Phenol, tetrafluoro-4-(pentafluoroethyl)-, polymers (8CI) (CA INDEX NAME)

CM 1

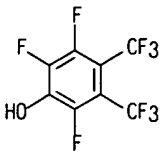
CRN 46859-85-2
CMF C8 H F9 O



RN 30231-03-9 HCAPLUS
CN 3,4-Xylenol, .alpha...alpha...alpha...alpha.',.alpha.',.alpha.',2,5,6-nonafluoro-, polymers (8CI) (CA INDEX NAME)

CM 1

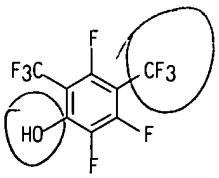
CRN 46859-80-7
CMF C8 H F9 O



RN 30231-04-0 HCAPLUS
CN 2,4-Xylenol, .alpha...alpha...alpha...alpha.',.alpha.',.alpha.',3,5,6-nonafluoro-, polymers (8CI) (CA INDEX NAME)

CM 1

CRN 2870-66-8
CMF C8 H F9 O



L19 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1967:76326 HCAPLUS
DN 66:76326
ED Entered STN: 12 May 1984
TI Synthesis of poly(p-oxyperfluorobenzylene) and related polymers. A novel synthesis of the monomer 2,3,5,6-tetrafluoro-4-trifluoromethylphenol
AU Antonucci, Joseph M.; Wall, Leo A.
CS Natl. Bur. of Stds., Washington, DC, USA
SO Journal of Research of the National Bureau of Standards, Section A: Physics and Chemistry (1967), 71(1), 33-41
CODEN: JNBAAR; ISSN: 0022-4332
DT Journal
LA English
CC 35 (Synthetic High Polymers)
GI For diagram(s), see printed CA Issue.
AB The title monomer (I) was prepared by refluxing 11 g. octafluorotoluene (II) and 3.8 g. tert-BuOLi in 30 ml. tert-BuOH for 15 hrs. to form the 1-tert-butoxy derivative (III) of I, removing any solid formed, and distilling, in

turn, the tert-BuOH and 8 g. (72% yield) of water-white I, b. 142-4.degree., liberated by thermal decomposition of III to isobutylene and I. I was polymerized by using dilute aqueous solns. of NaHCO3 or KF to give white solids softening at 70-80.degree.. Polymerization of I by using vacuum pyrolysis resulted in .apprx.25% conversion to a yellow solid softening at 110-20.degree.. Perfluoro-p-quinonemethide (IV) was suggested as a polymerization intermediate. An attempt to prepare 2,3,5,6-tetrafluoro-4-(trifluoromethyl)-aniline (V) by refluxing 20 g. II and 20 g. tert-BuNH2 for 2 hrs. and separating the amine salt with H2O resulted in a small amount of pungent liquid distilling at .apprx.190.degree. identified as V and a brownish-red solid, m. 80-135.degree., which was refluxed 45 min. in 5% aqueous K2CO3, filtered, washed with H2O, and dried in vacuo to give a tan crystalline solid softening at 120-40.degree.. Hexafluorobenzene (VI) (18.6 g.), 8.0 g. tert-BuOLi, and 50 ml. tert-BuOH were refluxed 24 hrs., cooled, diluted with 50 ml. C5H12, filtered, washed with H2O, dried over Na2SO4, and distilled to give 55% tert-butoxy-2,3,4,5,6-pentafluorobenzene, which formed pentafluorophenol and isobutylene at 400-550.degree.. VI (7.4 g.) and 5.8 g. tert-BuNH2 were heated 1 hr. at 200.degree., cooled, extracted with 50 ml. H2O, dried over Na2SO4, and distilled to give 20% N-tert-butyl-2,3,4,5,6-pentafluoroaniline, which decomposed at 400-550.degree. to isobutylene and pentafluoroaniline. LiH (0.8 g.) and 60 ml. tert-BuOH were stirred 1 hr. and 9.0 g. tert-BuSH added. The mixture was refluxed 1 hr., 23.6 g. II added, refluxed 7 hrs., cooled, filtered, and distilled to give 23 g. tert-Bu 2,3,5,6-tetrafluoro-4-trifluoromethylphenyl sulfide (VII) (>99% purity), b. 212-14.degree., which was a stable vapor at 400-500.degree., but which decomposed at >500.degree. to give a foul-smelling complex liquid containing only traces of the expected thiocresol. Possible mechanisms for decomposition of the tert-butyl compds. are considered.

ST POLYOXYPERFLUOROBENZYLENES; FLUOROMETHYLPHENOLS; PHENOLS FLUOROMETHYL

IT Polymerization
(of .alpha.,.alpha.,.alpha.,2,3,5,6-heptafluoro-p-cresol, mechanism of)

IT 651-83-2P 2787-79-3P 15705-50-7P 15705-51-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT **29258-66-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, mechanism of)

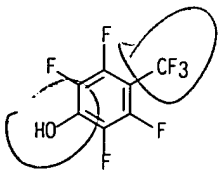
IT **29258-66-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, mechanism of)

RN 29258-66-0 HCAPLUS

CN Phenol, 2,3,5,6-tetrafluoro-4-(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2787-79-3
CMF C7 H F7 O



=> b home
FILE 'HOME' ENTERED AT 15:33:05 ON 07 MAR 2005

=>

Search done by Noble Jarrell

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
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NEWS	5	NOV 30	PHAR reloaded with additional data
NEWS	6	DEC 01	LISA now available on STN
NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	18	FEB 10	STN Patent Forums to be held in March 2005
NEWS	19	FEB 16	STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005
NEWS	20	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	21	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	22	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	23	MAR 02	GBFULL: New full-text patent database on STN
NEWS	24	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	25	MAR 03	MEDLINE file segment of TOXCENTER reloaded

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 16:42:48 ON 10 MAR 2005

=> FIL STNGUIDE
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'STNGUIDE' ENTERED AT 16:42:52 ON 10 MAR 2005
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Mar 4, 2005 (20050304/UP).

=> FILE REG
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

FILE 'REGISTRY' ENTERED AT 16:43:02 ON 10 MAR 2005
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STRUCTURE FILE UPDATES: 9 MAR 2005 HIGHEST RN 844817-50-1
DICTIONARY FILE UPDATES: 9 MAR 2005 HIGHEST RN 844817-50-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> S 135841-58-6/RN
L1 1 135841-58-6/RN

=> FILE HCAPLUS
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.86	1.13

FILE 'HCAPLUS' ENTERED AT 16:44:00 ON 10 MAR 2005
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 10 Mar 2005 VOL 142 ISS 11
FILE LAST UPDATED: 9 Mar 2005 (20050309/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> S L1
L2 1 L1

=> D L2 ABS IBIB

L2 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The title compds., fluoroalkyl olefins, fluorinated ketones and fluorobenzenes are prepared by reacting (R1)3SiCF2T, (R1)3SiPh [R1 = (substituted) hydrocarbyl; T = F, FCW2, W = (substituted) hydrocarbyl, silanyl, H, F] with Q1CF:CMQ2 [Q1, Q2 = F, X2FC; X = H, Cl, F, (substituted) hydrocarbyl, H2C:CH, bond; M = X2FC, X2CFO], FCOR2 [R2 = (substituted) hydrocarbyl], perfluoropyridine, PhY (Y = nonreactive group whose Hammet sigma constant is +0.5 or more) in presence of catalyst and a solvent. BzF and C6F13SiMe3 in THF-d8 were treated with CeF and heated for 15 min at 60° to give PhCOC6F13.

ACCESSION NUMBER: 1991:535679 HCAPLUS
DOCUMENT NUMBER: 115:135679
TITLE: Process for producing fluorinated organic compounds
INVENTOR(S): Farnham, William Brown
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9105750	A2	19910502	WO 1990-US5660		19901011
WO 9105750	A3	19910808			
W: CA, JP					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE					
US 5093512	A	19920303	US 1989-424470		19891020
CA 2067387	AA	19910421	CA 1990-2067387		19901011
EP 498817	A1	19920819	EP 1990-915622		19901011
EP 498817	B1	19940608			
R: DE, FR, GB, IT, NL, SE					
JP 05501252	T2	19930311	JP 1990-514545		19901011
US 5171893	A	19921215	US 1991-801344		19911202
PRIORITY APPLN. INFO.:			US 1989-424470	A	19891020
			WO 1990-US5660	W	19901011

OTHER SOURCE(S): MARPAT 115:135679

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=> FILE REG S 114649-17-1
'S' IS AN AMBIGUOUS FILE OR CLUSTER NAME
 SAFETY           - Occupational Health and Safety Cluster
 SESSION          - Current files with L-numbers Cluster
 STRUCTURE        - Structure Searching Cluster
 SUPPLIERS        - Product Directories and Suppliers Cluster
 SCISEARCH        - ISI Science Citation Index from 1974 - present
 SOLIDSTATE       - Solid State and Superconductivity Abstracts from 1981
 SOLIS            - German literature in social sciences 1945-present
 SPECINFO         - Spectral Database Information System
 STNGUIDE         - Descriptive information about STN databases
 STNMAIL          - STN Electronic Mail Service
 SYNTHLINE        - Synthline Drug Synthesis Database 1984-present
ENTER FILE OR CLUSTER NAME (IGNORE):END

=> FILE REG
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     7.55       8.68

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -0.73      -0.73

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STRUCTURE FILE UPDATES:    9 MAR 2005  HIGHEST RN 844817-50-1
DICTIONARY FILE UPDATES:   9 MAR 2005  HIGHEST RN 844817-50-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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  conducting SmartSELECT searches.

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Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> S 114649-17-1
L3            1 114649-17-1
                (114649-17-1/RN)

=> FILE HCAPLUS
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.43       9.11

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -0.73

FILE 'HCAPLUS' ENTERED AT 16:45:32 ON 10 MAR 2005
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FILE COVERS 1907 - 10 Mar 2005 VOL 142 ISS 11
FILE LAST UPDATED: 9 Mar 2005 (20050309/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L3
L4 2 L3

=> D L4 1-3 ABS IBIB

L4 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AB PhMe, PhCF3, p-xylene, and m-(CF3)2C6H4 were fluorinated at 300-400° with CsCoF4. PhMe gave mainly PhCHF2, C6F5CH2F, C6F5CHF2, perfluoromethylcyclohexane (I), and (difluoromethyl)undecafluorocyclohexane. PhCF3 gave mainly m-FC6H4CF3, C6F5CF3, and I. p-Xylene gave p-R1C6F4R2 (R1, R2 = CHF2, CF3), and perfluoro-1,4-dimethylcyclohexane (II). m-(CF3)2C6H4 gave 4,5,6,1,3-F3(CF3)2C6H, m-(CF3)2C6F4, and perfluoro-1,3-dimethylcyclohexane. I and II were defluorinated in the presence of the spent CsCoF4 (presumably CsCoF3) to give C6F5CF3 and p-(CF3)2C6F4, resp.

ACCESSION NUMBER: 1988:221344 HCAPLUS
DOCUMENT NUMBER: 108:221344
TITLE: Fluorinations with complex metal fluorides. Part 9. Fluorinations of toluene and xylene derivatives by means of cesium tetrafluorocobaltate(III)
AUTHOR(S): Bailey, John; Plevey, Raymond G.; Tatlow, John Colin
CORPORATE SOURCE: Chem. Dep., Univ. Birmingham, Birmingham, B15 2TT, UK
SOURCE: Journal of Fluorine Chemistry (1987), 37(1), 1-14
CODEN: JFLCAR; ISSN: 0022-1139
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 108:221344

L4 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The sulfone is heated at 650-850° to produce p-xylylene radicals which are polymerized by cooling to give heat-resistant and thermoplastic polymers. Thus, 73 g. 2-chloroterephthalaldehyde, prepared by hydrolysis of α,α,α',α'-tetrabromo-2-chloro-p-xylene, and 180 g. SF4 were mixed and heated at 150° for 12 hrs. to give a product which, after dissoln. in CH2Cl2 and washing with H2O and aqueous Na2CO3, was distilled to produce 67.5 g. α,α,α',α'-tetrafluoro-2-chloro-p-xylene (I) (b20 88-9°). Then, 42.4 g. I and 90 g. N-bromosuccinimide in 500 ml. CCl4 were refluxed for 64 hrs. while irradiated by uv light. After filtering the succinimide, distillation gave 11.05 g. 2,5(BrF2C)2C6H3Cl (II) (b25 126-8°). Gas chromatography indicated that this product was 98.5% pure. p-C6H4(CF2Br)2 (III) (b25

102-7°) was produced from terephthalaldehyde by a similar process, while p-C6H4(CF2Cl)2 (IV) (b34 86-90°) was prepared by treating p-C6H4(CHF2)2 with Cl under uv light. A mixture of 2.05 g. Na in 40 ml. MeOH, 100 ml. Me2SO, and 5.5 g. EtSH was stirred for 10 min., 13.9 g. II added, and the mixture heated for 2 hrs. at 50-60° and then held for 16 hrs. at room temperature After pouring the solution into ice-water, the product was extracted by CH2Cl2 and distilled to give 11.4 g. α,α'-bis(ethylthio)-α,α,α',α'-tetrafluoro-2-chloro-p-xylene (V) (b0.2-0.5 105-20°). This treatment of III with different mercaptans gave p-C6H4(CF2SR)2 (VI) with R = Et (b0.2 90-110°), Pr (b0.5-1 123-40°), Bu (b0.2 130-40°), and Ph (m.p. 152-60°). At 0-5°, 25 ml. 30% H2O2 was added dropwise to a solution of 11.4 g. V in 130 ml. 1:1 HOAc in Ac2O, the mixture was stirred for 3 hrs., poured into cold water, and the product washed with H2O, 5% aqueous Na2CO3, H2O, and crystallized from CHCl3 in hexane to give 7.2 g. α,α'-bis(ethylsulfonyl)-α,α,α',α'-tetrafluoro-2-chloro-p-xylene (VII) (m.p. 120-2°). Similarly, oxidation of VI gave the corresponding sulfones (VIII) m. 158-64° (R = Et), 158-63° (R = Pr), 162-66° (R = Bu), and 232-40° (R = Ph). VII was vaporized at 190° and 0.04 mm., passed through a quartz tube heated in a furnace, cooled to 15-20° and in a bath of dry ice in Me2CO. The walls of the condenser were covered with a film of poly(α,α,α',α'-tetrafluoro-2-chloro-p-xylylene). Heat treatment of VIII produced poly(α,α,α',α'-tetrafluoro-p-xylylene) (m.p. >360°), while poly(α,α,α',α'-2,3,5,6-octafluoro-p-xylylene) and poly(α,α,α',α'-tetrafluoro-2-phenyl-p-xylylene) were also prepared from the appropriate sulfones made from 2,3,5,6-tetrafluoroterephthalaldehyde and 2-phenylterephthalaldehyde, resp.

ACCESSION NUMBER: 1965:446763 HCAPLUS
DOCUMENT NUMBER: 63:46763
ORIGINAL REFERENCE NO.: 63:8520h,8521a-d
TITLE: Poly(fluoro-p-xylylenes) from p-xylylene bis-sulfones
PATENT ASSIGNEE(S): Union Carbide Corp.
SOURCE: 21 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6411019		19650324	NL	
PRIORITY APPLN. INFO.:			US	19630923